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GUIDELINES FOR EVAPORATIVE CERTIFICATION OF 2006 AND LATER SMALL OFF-ROAD ENGINES

September 2005

CALIFORNIA AIR RESOURCES BOARD
MOBILE SOURCE OPERATIONS DIVISION
9480 TELSTAR AVENUE, SUITE 4
EL MONTE, CALIFORNIA 91731-2988

10/19/2005

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PART I - GENERAL CERTIFICATION INSTRUCTIONS FOR ENGINES AND EQUIPMENT

A. Introduction

These general instructions provide guidance regarding the preparation, submission and revision of certification applications for Evaporative Emission Control Systems (EECSs) for 2006 and later small off-road engines and/or equipment (SOREs). The manufacturer must submit to the Air Resources Board (ARB) an application for certification containing all the required information and test data in the ARB-specified format. Other information required by the test procedures (e.g., test engine build records, test and maintenance records, etc.) must be maintained by the manufacturer and made available to the ARB within 30 days upon request. This part addresses the common areas of certification for Part II, Evaporative Requirements for Engines less than or equal to 80 cc, and Part III, Evaporative Requirements for Engines greater than 80 cc.

An Executive Order (EO) of Certification, indicating that these engines meet applicable evaporative requirements, must be obtained prior to the sale or lease, or the offering for sale or lease, for use or operation in California or the delivery or importation for introduction into commerce in California.

B. Obtaining a Manufacturer Code

Engine manufacturers and importers must notify the United States Environmental Protection (U.S. EPA) if they intend to manufacture small engines that will require U.S. EPA or California emissions certification. Such notification does not obligate a manufacturer to certify engines.

If a manufacturer has not previously certified mobile source engines or vehicles with the U.S. EPA, the U.S. EPA will assign a manufacturer code, consisting of three letters or a combination of letter(s) and number(s) that will be a permanent code to be included in the manufacturer's engine family designations.

Manufacturers who already have assigned codes for other categories must still notify the U.S. EPA to change their status to include small engines. Engine family names must follow the U.S. EPA nomenclature convention. The Manufacturer Code Entry Form that all new manufacturers must use to obtain Certification Codes can be found at the following U.S. EPA website link:

www.epa.gov/OMSWWW/cfeis.htm.

Scroll down this page to "New Manufacturer Information".

C. Contact Persons

Each manufacturer must designate one or two authorized representatives to discuss certification matters with the ARB staff. This information is submitted as part of the application. The ARB will assign an ARB primary certification contact person for each manufacturer. For an assigned contact person, please contact the Manager, Off-Road Certification/Audit Section at (626) 575-7040, or mail:

Manager, Off-Road Certification/Audit Section
Mobile Source Operations Division
Air Resources Board
9480 Telstar Avenue, Suite 4
El Monte, California 91731-2988

D. Pre-approval

Prior to submission of the completed application for certification, the manufacturer may submit several certification items for pre-approval, such as the emission warranty statement, emission labels, and alternative test procedures. The ARB recommends that the manufacturer submit any modification to the test procedures in advance of the application. Prior approvals, minimizes the chance of delays in obtaining the Executive Order. Failure to obtain needed approvals may result in potential non-certification.

E. Where to Submit Applications for Certification

All certification-related applications and correspondence should be submitted to:

Mobile Source Operations Division
Off-Road Certification/Audit Section
Air Resources Board
9480 Telstar Avenue, Suite 4
El Monte, California 91731-2988
Attn: Division Chief

F. Letter of Intent

Engine manufacturers should submit a letter of intent (LOI) to provide the ARB with an overview of the manufacturer's certification intent such as explaining the basic information of all evaporative families and/or equipment to be certified. The LOI can also be used to notify the ARB of any issues that may impact certification. The LOI should include identification of the evaporative family names, the anticipated dates when an application for certification will be submitted, and when distribution will be scheduled to begin. Manufacturers may combine the exhaust and evaporative LOI together. The LOI should be submitted as soon as possible, preferably before any certification applications are prepared. The manufacturer should submit the LOI in a ring binder with ring binder dividers labeled for each family. This will assist the ARB certification staff in planning and resources allocation for a timely approval of the applications.

G. Cover Letter

A cover letter signed by the manufacturer's authorized representative must accompany each application. The cover letter should recap highlights about the evaporative family and/or equipment, such as the applicable standard, the use of a modified or alternative test procedure, the use of a new emission control technology, anticipated start date of production, and other pertinent information. The statements of compliance must be provided in the cover letter. The evaporative and exhaust statements of compliance may be combined.

H. Data Carryover and Carryacross

Subject to ARB approval, certification test data of an evaporative family and/or equipment may be carried over, in lieu of new tests, to subsequent families in following model years, provided there have been no changes to the emissions control system or to any emissions control system component(s). Also, subject to ARB approval, the certification test data of an evaporative family and/or equipment may be carried across, in lieu of new tests, to a different evaporative family and/or equipment in the same model year if the manufacturer adequately demonstrates to the satisfaction of the ARB that the emission data is representative of the new evaporative family and/or equipment.

I. Labeling

The manufacturer is required to submit, for each evaporative family and/or equipment, all applicable labels to the ARB for review and approval of the format, content and location. The evaporative emission certification label may be integrated with the exhaust emission label and must include an unconditional statement of compliance with the appropriate model year(s). Manufacturers that certify to the optional performance standards would be allowed to affix a Blue Sky Label. The proposed locations must be shown by either a drawing or photograph. Detailed written explanations of the label locations may also be acceptable. Samples of all actual production labels must be submitted to the ARB within thirty days after the start of production. Sample labels are not required for carryover certification unless labels are revised.

J. Emission Warranty Statement

A copy of the manufacturer's emission warranty statement for the EECS and/or components that will be provided to the end users must be submitted for ARB review and approval (preferably) prior to, or concurrent with, the evaporative family and/or equipment application.

The manufacturer defects warranty requirements are provided in section 2760. An application must include a copy of the Evaporative Emission Control Warranty Statement as referenced in Section 2764, including the evaporative emission warranty parts list with each new engine and/or equipment, using the portions of the list that are applicable as shown in section 2760. The evaporative emission control warranty statement may be integrated with the exhaust emission control warranty statement.

K. Test Procedures

The applicable test procedures for determining evaporative emissions for small off-road engines and equipment are listed in the References section.

L. Alternate Test Procedures

Any deviations to the prescribed test equipment and/or test procedures must be approved by the ARB before use. The use of unapproved test equipment and/or procedures may result in rejection of generated test data. Approved alternate test equipment and/or test procedures must be described in the first evaporative family and/or equipment application that employs the alternate test equipment and/or test procedures. Subsequent evaporative family and/or equipment applications that use the same alternate test equipment and/or test procedures may reference the approval number obtained from the first such application certification process.

M. Certification Emission Test Fuel

The certification emission test fuel must meet the specifications in the test procedures to reduce emission variations. Testing with unauthorized fuel will result in rejection of the test results. The certification test fuels used for emissions testing are California reformulated gasoline (CaRFG) and Indolene Clear and must be consistent with the fuel specifications as outlined in Part II, Section 100.3 of the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" 2000.

N. Amendments to the Application

Any revisions to the application due to typographical errors, corrections, running changes (R/Cs) or field fixes, or new test data and information must be submitted to the ARB. The manufacturer may find it necessary to amend the application, for example, due to production running changes in engine calibration, changes in part numbers, or an addition or deletion of models. The manufacturer may amend the application in advance of or concurrently with production. If the changes are typographical or administrative (e.g. change in the contact person) in nature, the equipment manufacturer needs only to provide a brief description and the revised pages of the application. The brief description may be provided in the information and comments section of the application. If the change affects an emission-related part or results in a new worst-case test engine or equipment, the manufacturer must show that the evaporative family and/or equipment will still remain in compliance by submitting new test data. If the change is not expected to affect emissions, the manufacturer must provide an engineering evaluation supporting this conclusion. Generally, only the following fields in the application need to be filled out for changes: *manufacturer name*, *model year*, *evaporative family or equipment name*, *application type*, *comments fields* (describing the update or change), *the field(s) that has been changed or corrected*. All other fields may be left blank. Only submit the pages of the application that were amended.

O. Running Changes and Field-Fixes

Any factory change to the engine and/or equipment during the model year production must be approved by the ARB via a manufacturer's submitted R/C request. If a manufacturer does not receive notification of the ARB's disapproval of a R/C within 30 days of submittal to the ARB, then the R/C is considered to have been approved. Any change implemented after leaving the assembly line (e.g. at factory warehouses, distribution centers, dealers) must be approved by the ARB via a manufacturer's submitted field fix request. A field fix request typically occurs after the model year production has ended. Field fixes and R/Cs not approved by the ARB will render affected engines and/or equipment uncertified and subject the manufacturer to ARB enforcement actions. If the change affects an emission-related part or results in a new worst-case test engine and/or equipment, new test data or engineering evaluations will be required to demonstrate that the evaporative family will remain in compliance.

P. Confidentiality

By default, the ARB will deem the equipment manufacturer's projected California and United States sales numbers and catalytic converter composition (precious metal ratio and loading) as confidential. Manufacturers may be required to justify confidential designations for other certification information (items such as fuel tank design, may be treated as confidential, if a request is made with supporting justification). The other information to be considered confidential must be justified in the "Additional Information and Comments" section of the application form.

Q. Review of Application

The ARB will make every effort to review an application within 30 days of receipt of a complete application. The normal processing time is 4-6 weeks. The ARB will approve or disapprove an application within 90 days after receipt of the complete application. As part of the review, ARB will determine whether to request additional information and/or confirmatory testing. Once the final review is competed and all questions are answered to the satisfaction of the reviewer, the Executive Order will be issued.

PART II - EVAPORATIVE REQUIREMENTS ENGINES AND EQUIPMENT FOR LESS THAN OR EQUAL TO 80 cc

A. Introduction

This part provides general instructions regarding the preparation, submission and revision of a certification application for permeation emissions from fuel tanks on small off-road engines less than or equal to 80 cc displacement. These guidelines provide information to assist the small off-road engine manufacturer and/or equipment manufacturer to complete the certification process to obtain the Executive Orders required for distributing small off-road engines in California. The engine or equipment manufacturer may apply for an Executive Order for those engine families meeting the permeation emissions requirements.

The certification procedures in CP-901, entitled, "Certification And Approval Procedures for Small Off-Road Engine Fuel Tanks," and the test procedures in TP-901, entitled, "Test Procedure for Determining Permeation Emissions from Small Off-Road Engines and Equipment Fuel Tanks," must be followed. These guidelines are intended provide additional information, including application formats and examples of certification documents. The attachments provide the applicable formats and include examples of completed applications and forms.

B. General Overview

Beginning with the 2007 model year, small off-road engines less than or equal to 80 cc displacement that operate on gasoline must use a fuel tank that meets the permeation emissions requirements.

The permeation emissions performance standards for fuel tanks used on engines less than or equal to 80 cc displacement are defined in Title 13, California Code of Regulations, Section 2755 and 2757. The optional performance standards (Section 2757) are more stringent than the performance standard set in section 2755. Fuel tanks can also be certified to section 2755 by using an equivalent tank defined in Section 2752 (a)(5) or by using a tank approved pursuant to Innovative Products in section 2767. In addition, low permeation fuel tanks are exempt from meeting the permeation rate standard in section 2755 pursuant to exemption requirements of section 2766, however, the manufacturer must certify annually by submitting a Letter of Conformance to obtain an Executive Order.

C. General Instructions for Fuel Tank Certification

Typically, to certify an evaporative family under the small off-road engine regulations, a manufacturer will have to conduct exhaust emission testing on an engine family and permeation emission testing on the fuel tank for the evaporative and/or exhaust engine family. Manufacturers that certify tanks to the permeation standards must follow CP-901. The test procedure used to determine compliance with maximum allowable permeation emissions is described in TP-901.

1. **Cover Letter.**
If the fuel tank meets the requirements for a low permeation fuel tank exemption, the manufacturer may certify under the reduced certification requirements (tank permeation data will not be required) by submitting a Letter of Conformance. The Letter of Conformance statement may be included in the LOI or cover letter. A sample cover letter is provided in Attachment II-A.

2. **Data Carryover and Carryacross.**
For Data Carryover and Carryacross, the manufacturer need only test the "worst-case" fuel tank from a permeation emission perspective, which is typically the fuel tank with the least tank volume to internal surface area ratio for all evaporative families with the same material/process. These certification test results can then be used in the certification of other tanks/evaporative families constructed of the same materials/processes.

3. **Labeling.**
The permeation emissions certification label must include an unconditional statement of conformance with the maximum allowable permeation standard and identify the manufacturer and the engine displacement. Several examples of labels are shown in Attachment II-B, including a combined exhaust and evaporative emissions control label and a Blue Sky Series label.

4. **Emission Warranty Statement.**
For the evaporative emission warranty parts list, only the fuel tank would be considered to be an evaporative emission warranty part. An example of a combined exhaust and evaporative warranty statement, and an evaporative warranty statement is provided in Attachment II-C.

5. **Application for Certification.**
An applicant for certification of an EECS that complies with the fuel tank permeation standards specified in section 2755 must submit fuel tank permeation data that exhibits the highest evaporative emission characteristics for an evaporative family ("worst-case") as part of the certification application. The manufacturer must submit to the ARB certification information and permeation test data in the ARB-specified format. The applicant will complete the Certification Summary Sheet and the Supplementary Information sheets that include the certification test results and other required information. If the manufacturer meets the low permeation fuel tank exemption requirements of section 2766, the fuel tank permeation data will not be required and the manufacturer will indicate that the fuel tank is exempt in the Exemptions section of the Certification Summary Sheet. The Certification Summary Sheet and the Supplementary Information sheets along with the instructions for data input are included in Attachment II-D.

Manufacturers that use innovative technology to meet permeation emission standards must apply in writing to the Monitoring and Laboratory Division (MLD) of the ARB for an innovative product equivalency. If approved, MLD will issue an approval number that the manufacturer will reference in the Certification Summary Sheet.

Summary of Certification Process shall contain documentation of applicable portions of the requirements contained in CP–901, including but not limited to the following: All problems encountered throughout the certification process, the types of testing performed, and the frequency and/or duration of any testing, as appropriate. This summary may be included in the Supplementary Information of the application in the Additional Information and Comments section as appropriate.

6. Field Data Sheet.

The test procedures used to determine compliance with the Permeation Emissions Performance Standard, including equipment provisions and emission test procedures, are specified in TP-901. The Field Data Sheet (Figure 1 in TP-901) provides the test data sheet for the manufacturer to provide the 10 data points that shows the correlation coefficient (R^2) from a plot of the cumulative daily weight loss versus time for ten consecutive 24-hour cycles, which must be 95% or greater. A sample Field Data Sheet in the Supplementary Information of the application is included in Attachment II-D.

7. Application Submission.

One printed copy of the evaporative family application completed in accordance with these guidelines is provided in Attachment II-D. The complete application should include a minimum of the following items: the letter of intent, cover letter, application template (Certification Summary Sheet and Supplemental Information sheets), labels, warranty statement, and any other applicable information.

8. ARB Review Process.

The ARB staff will review the certification application and determine if the application contains all applicable information and submittals. The ARB may direct the manufacturer to conduct a confirmatory test if the original test results indicate marginal (within 5% of the standard) compliance. The fuel tank selected for testing will be of a configuration and material composition such that it is expected to yield the highest permeation emissions within an engine family and/or equipment (i.e. worst case).

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Attachment II-A Sample Cover Letter/Statement of Compliance

Combined Exhaust and Evaporative Cover Letter

Manufacturer Assigned Representative
ABC Company
555 Street Name
City, State Zip

November 11, 2006

Mr. Allen Lyons, Chief
Mobile Source Operations Division
Air Resources Board
9480 Telstar Avenue, Suite 4
El Monte, California 91734-2301
Attn. Off-Road Certification/Audit Section

Re: MY 2007 Certification of ABC Company Engine Family 7ABCXS.0651X

Dear Mr. Lyons:

ABC Company hereby submits an application to the Air Resources Board for the 2007 model year that covers engine family 7ABCXS.0651X. The ABC Company makes the following statements of compliance regarding the aforementioned small off-road engine family:

1) Conformance with the general standards regarding an increase in emissions and unsafe conditions as required by Section 5 of the "California Exhaust Emission Standards and Test Procedures for 2005 and Later Small Off-Road Engines", amended March 23, 1999.
2) The fuel tank was tested in conformance with the TP-901 test procedures.
3) Conformance with the emissions control label 13 CCR, Section 2404 and 2759.
4) Conformance with the standards and test procedure requirements by the test engine, and that the test engine was tested in accordance with the applicable test procedures and meets the requirements of such tests [Ref.: 4, Subpart B, section 90.107(d)(9)].
5) Compliance, to the best of the manufacturer's belief, with the corporate average at the end of the model year when all credits are calculated for all of the manufacturer's engine families [Ref.:1, section 2408(g)(1)(A)].

If you have any questions regarding this certification, please call me at 1-XXX-XXX-XXXX (Input phone #) or you may respond via e-mail at abcx@xxxxx.com (input e-mail address).

Sincerely,

(Sign here)

Manufacturer of Record Representative

Attachment II-B Samples of Engine or Equipment Label

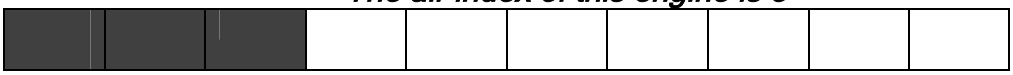
Exhaust and Evaporative Engine Label Samples:

Minimum Requirements if there is insufficient space on the engine to accommodate an engine label. The fuel or lubricant must be specified elsewhere on the engine or in the owner's manual. All text is no smaller than 2 millimeters in height.

IMPORTANT EMISSIONS INFORMATION
ABC COMPANY
THIS ENGINE MEETS 2007 CALIFORNIA EXH AND EVP EMISSION REGULATIONS FOR SMALL OFF-ROAD ENGINES
EF: 7ABCS.0651XX
DISPLACEMENT: 65 CC.
DOM: JULY 2007
EMISSION CONTROL SYSTEM: EM
NO OTHER ADJUSTMENTS NEEDED

Air Index Label

The air index of this engine is 3



Most Clean *Least Clean*

Note: The lower the Air Index, the less pollution

This engine is certified to be emissions compliant for the following use:

☐ Moderate (50 hours)	☒ Intermediate (125 hours)	☐ Extended (300 hours)

Check owner's manual for further details.

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Emissions label with Engine Label and Air Index Label combined:

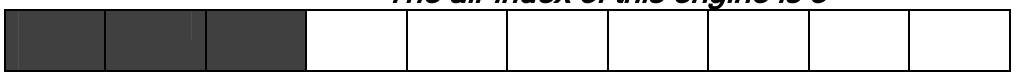
IMPORTANT EMISSIONS INFORMATION
ABC COMPANY
THIS ENGINE MEETS 2007 CALIFORNIA EXH AND EVP EMISSION REGULATIONS
FOR SMALL OFF-ROAD ENGINES

EF: 7ABCS.0651XX
DOM: JAN 2005
DISPLACEMENT: 65 CC.
EMISSION CONTROL SYSTEM: EM
THIS ENGINE IS CERTIFIED TO OPERATE ON GASOLINE

MAINTENANCE SPECIFICATIONS	ENGINE OIL: SAE 10W - 30
IGNITION TIMING: 23 BTDC	SPARK PLUG GAP: .037-.041"

NO OTHER ADJUSTMENTS NEEDED

The air index of this engine is 3



Most Clean ***Least Clean***

Note: The lower the Air Index, the less pollution

This engine is certified to be emissions compliant for the following use:

[ ] Moderate (50 hours) [X] Intermediate (125 hours) [ ] Extended (300 hours)

Check owner's manual for further details.

Evaporative Equipment Permeation label for a Blue Sky Series engine:

IMPORTANT EMISSIONS INFORMATION **Blue Sky**
ABC Company
THIS ENGINE MEETS 2007 CALIFORNIA EVP EMISSION REGULATIONS FOR BLUE SKY EQUIPMENT FOR SMALL OFF-ROAD ENGINES
EF: 7ABCS.0651XX
DISPLACEMENT: 65 CC
DOM: JAN 2006

Attachment II-C Samples of Emission Control Warranty Statements

Combined Exhaust and Evaporative Emissions Control Warranty Statement

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Test Record Engine Company (and manufacturer's name, optional) is pleased to explain the emissions control system's warranty on your 2007 (model year(s)) small off-road (equipment type) engine. In California, new equipment that use small off-engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. Test Record Engine Company (Manufacturer's name) must warrant the emissions control system on your small off-road (equipment type) engine for the period listed below provided there has been no abuse, neglect or improper maintenance of your equipment.

Your emissions control system may include parts such as: carburetors or fuel injection system, ignition system, catalytic converters, fuel tanks, valves, filters, clamps, connectors, and other associated components. Also, included may be hoses, belts, connectors, sensors, and other emission-related assemblies.

Where a warrantable condition exists, Test Record Engine Company (manufacturer's name) will repair your small off-road (or equipment type) engine at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S WARRANTY COVERAGE:
This emissions control system is warranted for two years. If any emissions-related part on your equipment is defective, the part will be repaired or replaced by (manufacturer's name).

OWNER'S WARRANTY RESPONSIBILITIES:

- As the small off-road (equipment type) engine owner, you are responsible for performance of the required maintenance listed in your owner's manual. Test Record Engine Company (Manufacturer's name) recommends that you retain all receipts covering maintenance on your small off-road (equipment type) engine, but Test Record Engine Company (manufacturer's name) cannot deny warranty solely for the lack of receipts or your failure to ensure the performance of all scheduled maintenance.
- As the small off-road (equipment type) engine owner, you should however be aware that the Test Record Engine Company (manufacturer's name) may deny you warranty coverage if your small off-road (equipment type) engine or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.
- You are responsible for presenting your small off-road (equipment type) engine to a Test Record Engine Company (manufacturer's name) distribution center or service center as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact (Insert chosen manufacturer's contact) at 1-XXX-XXX-XXXX.

DEFECTS WARRANTY REQUIREMENTS:

(a) The warranty period begins on the date the engine or equipment is delivered to an ultimate purchaser.

(b) **General Emissions Warranty Coverage**. The Test Record Engine Company (manufacturer's name) of each small off-road engine or equipment must warrant to the ultimate purchaser and each subsequent owner that the engine or equipment is:

(1) Designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board; and

(2) Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.

(c) The warranty on emissions-related parts will be interpreted as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions required by subsection (d) must be warranted for the warranty period defined in Subsection (b)(2). If any such part fails during the period of warranty coverage, it must be repaired or replaced by the manufacturer according to Subsection (4) below. Any such part repaired or replaced under the warranty must be warranted for the remaining warranty period.

(2) Any warranted part that is scheduled only for regular inspection in the written instructions required by subsection (d) must be warranted for the warranty period defined in Subsection (b)(2). A statement in such written instructions to the effect of "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for the remaining warranty period.

(3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions required by subsection (d) must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by the engine manufacturer according to Subsection (4) below. Any such part repaired or replaced under warranty must be warranted for the remainder of the period prior to the first scheduled replacement point for the part.

(4) Repair or replacement of any warranted part under the warranty must be performed at no charge to the owner at a warranty station.

(5) Notwithstanding the provisions of Subsection (4) above, warranty services or repairs must be provided at all manufacturer distribution centers that are franchised to service the subject engines.

(6) The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.

(7) The manufacturer is liable for damages to other engine components proximately caused by a failure under warranty of any warranted part.

(8) Throughout the emissions warranty period defined in Subsection (b)(2), the manufacturer must maintain a supply of warranted parts sufficient to meet the expected demand for such parts.

(9) Any replacement part may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of the manufacturer.

(10) Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts will be grounds for

disallowing a warranty claim. The manufacturer will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

(11) The manufacturer issuing the warranty shall provide any documents that describe that manufacturer's warranty procedures or policies within five working days of request by the Air Resources Board.

(d) **Emission Warranty Parts List**.

(1) Fuel Metering System
- (i) Carburetor and internal parts (and/or pressure regulator or fuel injection system).
- (ii) Air/fuel ratio feedback and control system.
- (iii) Cold start enrichment system.
- (iv) Fuel Tank.

(2) Air Induction System
- (i) Controlled hot air intake system.
- (ii) Intake manifold.
- (iii) Air filter.

(3) Ignition System
- (i) Spark Plugs.
- (ii) Magneto or electronic ignition system.
- (iii) Spark advance/retard system.

(4) Exhaust Gas Recirculation (EGR) System
- (i) EGR valve body, and carburetor spacer if applicable.
- (ii) EGR rate feedback and control system.

(5) Air Injection System
- (i) Air pump or pulse valve.
- (ii) Valves affecting distribution of flow.
- (iii) Distribution manifold.

(6) Catalyst or Thermal Reactor System
- (i) Catalytic converter.
- (ii) Thermal reactor.
- (iii) Exhaust manifold.

(7) Particulate Controls
- (i) Traps, filters, precipitators, and any other device used to capture particulate emissions.

(8) Miscellaneous Items Used in Above Systems
- (i) Electronic controls.
- (ii) Vacuum, temperature, and time sensitive valves and switches.
- (iii) Hoses, belts, connectors, and assemblies.

Test Record Engine Company (engine manufacturer) will furnish with each new engine written instructions for the maintenance and use of the engine by the owner.

Evaporative Emission Control Warranty Statement

CALIFORNIA EVAPORATIVE EMISSION CONTROL WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Test Record Engine Company (and manufacturer's name, optional) is pleased to explain the evaporative emission control system's warranty on your 2007 model year (year(s)) small off-road (equipment type) engine. In California, new equipment that use small off-engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. Test Record Engine Company (Manufacturer's name) must warrant the evaporative emission control system on your small off-road (equipment type) engine for the period listed below provided there has been no abuse, neglect or improper maintenance of your equipment.

Your evaporative emission control system may include parts such as: carburetors, fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, and other associated components**. For engines less than or equal to 80 cc, only the fuel tank is subject to the evaporative emission control warranty requirements of this section.**

MANUFACTURER'S WARRANTY COVERAGE:
This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your equipment is defective, the part will be repaired or replaced by Test Record Engine Company (manufacturer's name).

OWNER'S WARRANTY RESPONSIBILITIES:

- As the small off-road engine (equipment type) owner, you are responsible for performance of the required maintenance listed in your owner's manual. Test Record Engine Company (Manufacturer's name) recommends that you retain all receipts covering maintenance on your (equipment type), but Test Record Engine Company (manufacturer's name) cannot deny warranty solely for the lack of receipts.
- As the small off-road engine (equipment type) owner, you should however be aware that the Test Record Engine Company (manufacturer's name) may deny you warranty coverage if your fuel tank has failed due to abuse, neglect, or improper maintenance or unapproved modifications.
- You are responsible for presenting your (equipment type/fuel tank) to a Test Record Engine Company (manufacturer's name) distribution center or service center as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact (Insert chosen manufacturer's contact) at 1-XXX-XXX-XXXX.

DEFECTS WARRANTY REQUIREMENTS:
(a) The warranty period begins on the date the engine or equipment is delivered to an ultimate purchaser.
(b) General Evaporative Emissions Warranty Coverage. The fuel tank must be warranted to the ultimate purchaser and any subsequent owner that the evaporative emission control system when installed was:
(1) Designed, built, and equipped so as to conform with all applicable regulations; and

(2) Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.

(c) The warranty on evaporative emissions-related parts will be interpreted as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions must be warranted for the warranty period defined in subsection (b)(2). If any such part fails during the period of warranty coverage, it must be repaired or replaced by the Test Record Engine Company (manufacturer's name) issuing the warranty. Any such part repaired or replaced under the warranty must be warranted for a time not less than the remaining warranty period.

(2) Any warranted part that is scheduled only for regular inspection in the written instructions must be warranted for the warranty period defined in subsection (b)(2). A statement in such written instructions to the effect of "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for a time not less than the remaining warranty period.

(3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by the Test Record Engine Company (manufacturer's name). Any such part repaired or replaced under warranty must be warranted for a time not less than the remainder of the period prior to the first scheduled replacement point for the part.

(4) Repair or replacement of any warranted part under the warranty provisions of this article must be performed at no charge to the owner at a warranty station.

(5) Notwithstanding the provisions of subsection (4) above, warranty services or repairs must be provided at distribution centers that are franchised to service the subject engines or equipment.

(6) The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.

(7) Throughout the evaporative emission control system's warranty period set out in subsection (b)(2), the Test Record Engine Company (manufacturer's name) issuing the warranty must maintain a supply of warranted parts sufficient to meet the expected demand for such parts.

(8) Manufacturer approved replacement parts must be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of the manufacturer issuing the warranty.

(9) The use of any add-on or modified parts will be grounds for disallowing a warranty claim made in accordance with this article. The manufacturer issuing the warranty will not be liable under this Article to warrant failures of warranted parts caused by the use of an add-on or modified part.

(10) The Test Record Engine Company (manufacturer's name) issuing the warranty shall provide any documents that describe the warranty procedures or policies within five working days of request by the Air Resources Board.

EMISSION WARRANTY PARTS LIST:

1) Fuel Tank

Written instructions for the maintenance and use of the evaporative emissions control system by the owner shall be furnished with each new engine or equipment.

Attachment II-D Sample of Completed Certification Application

The application submittal includes the following items:

- LOI
- Cover Letter
- Certification Summary Sheet Instructions for Data Input
- Certification Summary Sheet
- Supplementary Information and Field Data Sheet Instructions for Data Input
- Supplementary Information (label and warranty language included)
- Field Data Sheet

Note: For the combined exhaust and evaporative certification, the exhaust engine application also needs to be completed and submitted; this application may be downloaded from the following U.S. EPA Website link:

http://www.epa.gov/otaq/certdat2.htm

DRAFT

Mr. Allen Lyons, Chief
Mobile Source Operations Division
Air Resources Board
9480 Telstar Avenue, Suite 4
El Monte, California 91734-2301
Attn. Off-Road Certification/Audit Section

October 15, 2006

Re: Letter of Intent for ABC Company Model Year 2007 Small Off-Road Engines

Dear Mr. Lyons:

ABC Company intends to produce and distribute small off-road engines in California and the United States. The fuel tanks or engines will be marketed by ABC Company OEMs to the general public in all 50 states. As such, ABC Company will coordinate with ARB and U.S. EPA staff to complete a 50-state certification program for the referenced engine families.

ABC Company will offer three distinct evaporative/engine families for the California small off-road engine market for the 2007 model year (MY). The following table provides an overview of ABC Company's proposed certification timeline for the 2007 MY small off-road engines or equipment.

Evaporative Family Name	Warranty, Label, Tamper, Approval	PLT Plan Approval	Application Submittal	Intended Distribution
7ABXS.0651AB	8/30/06	9/30/06	10/30/06	2/5/07
7ABXS.0651CA	8/30/06	9/30/06	10/30/06	2/5/07
7ABXS.0691CA	8/30/06	9/30/06	10/30/06	2/5/07

If you need additional information, please call me at 1 XXX-XXX-XXXX.

Regards,

(Sign here)

ABC Company Representative, Title
ABC Company

DRAFT

Manufacturer Assigned Representative December 15, 2006
ABC Company
555 Street Name
City, State, Zip

Mr. Allen Lyons, Chief
Mobile Source Operations Division
Air Resources Board
9480 Telstar Avenue, Suite 4
El Monte, California 91734-2301
Attn. Off-Road Certification/Audit Section

Re: Cover Letter for MY 2007 Certification of ABC Company Evaporative/Engine Family 7ABXS.0651AB

Dear Mr. Lyons:

ABC Company hereby submits an application to the Air Resources Board for the 2007 model year that covers evaporative/engine family 7ABXS.0651AB. ABC Company makes the following statements of compliance regarding the aforementioned small off-road engine family:

1) Conformance with the general standards regarding an increase in emissions and unsafe conditions as required by Section 5 of the "California Exhaust Emission Standards and Test Procedures for 1995 and Later Small Off-Road Engines", amended March 23, 1999.
2) The fuel tank was tested in conformance with the TP-901 test procedures.
3) Conformance with the emissions control label 13 CCR, Section 2404 and 2759.
4) Conformance with the standards and test procedure requirements by the test engine, and that the test engine was tested in accordance with the applicable test procedures and meets the requirements of such tests [Ref.: 4, Subpart B, Section 90.107(d)(9)].

Compliance, to the best of the manufacturer's belief, with the corporate average at the end of the model year when all credits are calculated for all of the manufacturer's engine families [Ref.:1, section 2408(g)(1)(A)].

If you have any questions regarding this certification, please call me at 1-XXX-XXX-XXXX (Input phone #) or you may respond via e-mail at abcxxxxxxxx.com (input e-mail address).

Sincerely,

(Sign here)

Manufacturer of Record Representative

Certification Summary Sheet Instructions for Data Input			
No.	*Name*	*Input Data*	*Description*
1	Model Year	2007	Input 4-digit model year
2a	Manufacturer	Example: ABC Co.	Name of certifying manufacturer
2b	Contact Person	Example: ABC representative name	Name of manufacturer certification contact
2c	Production Plant Location	Example: 555 Street name, City, Zip	Production plant address and contact information
2d	Manufacturer Contact	Example: 555 Street name, City, Zip	Production plant address and contact information
3	Application Type	New R/C= running change	Input application descriptor (i.e. New for new submission)
4	Exhaust/Evaporative Family Name	Example: 7ABCXS.0651X	Input the engine family name/evaporative family name
5	Executive Order	Example: U-U-XXX-XXXX	Input Executive Order, if fuel tank has an Executive Order (This field is typically for ARB input)
6(a)	Projected California Sales (units)	Example: 1000	Input projected California sales volume
6(b)	Projected 50 State Sales (units)	Example: 10000	Input projected 50 state sales volume
6(c)	Introduction into commerce date	Example: 2/5/07	Input date: mm/dd/yy
7(a)	Is this an exempt fuel tank under 2766a?	Yes/No	Indicate if fuel tank meets exemption of section 2766
7(b)	If exempt, specify the tank type	If exempt, check exemption type	Check mark applicable exempt tank category If Innovative Product, input the approved Executive Order #
8(a)	New Testing	Yes/No	Indicate if new test was completed
8(b)	Test Engine or Equipment Model	Example 100500Y	Input the test engine or equipment model No.
8(c)	Test Fuel	Example: PH2	Input cert. fuel: PH2=reformulated gasoline, IND=Indolene
8(d)	Test Procedure	Example: TP-901	Indicate test procedure used
8(e)	If carry over/carry across, from evaporative family	Example: 7ABCXS.0651X	Input evaporative family name from carry over or carry across from another family
8(f)	Test Equipment ID	Example: 1234ABC	Input equipment identification number
8(g)	Alternate Test Procedure Approval #	If used, input stamp approval #	Input approval number for alternate or modified procedure
9	Special Test Equipment	Yes/No	If yes, indicate special test equipment used
10(a)	Test No.	Example: 123xy	Input the number assigned to the test
11	Type	CTG	Input 3 letter code (CTG=certification test, RTG=confirmatory test)
12	Test Completion Date	Example: 9/06/06	Input test date: mm/dd/yy
13	Certification Test Result	Example: 0.38	Input certification test result in gr/m^2/day
14	Fuel Tank Permeation Std	Example: 2.0	Input permeation standard in gr/m^2/day
15	Remarks		Input any remarks/comments or leave blank
16	Equipment Type	Example: X	Input check mark for type of equipment

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SMALL OFF-ROAD EQUIPMENT FUEL TANK CERTIFICATION
(APPLICABLE TO ENGINES/EQUIPMENT ≤ 80 cc)
Certification Summary Sheet

Date Created: 11/11/2006
Date Modified:

1. Model Year: 2007
2a. Manufacturer: ABC Company
2b. EPA Assigned Manufacturer Code: ABX
3. Application Type: New
4. Exhaust/Evaporative Family Name: 7ABXS.0651AB
5. Executive Order:

2c) Manufacturer Contact	2d) Production Plant Location/Contact
Contact: Mr. John Smith	Contact: John Doe
Title: President	Title: Plant Manager
Company: ABC Company	Company: ABC Company Plant
Address: 555 Street Name City, State, Zip	Address: 555 Street Name City, State, Zip
Phone No.: 1-XXX-XXX-XXXX	Phone No.: 1-XXX-XXX-XXXX
Fax No.: 1-XXX-XXX-XXXX	Fax No.: 1-XXX-XXX-XXXX
Email: jsmithabcxxx.com	Email: jdoeabcxxx.com

6. Confidential Information
a) Projected California sales(units): 1000
b) Projected 50-State Sales (units): 9000
c) Introduction into commerce date: 2/5/07

7. Exemptions
a) Is this an exempt fuel tank under section 2766(a) ? ☐ Yes* ☒ No
b) If exempt, specify the tank type: ☐ Metal tank ☐ Coextruded multilayer tank
☐ Structurally integrated nylon fuel tank ☐ Innovative Product Executive Order #: _____

*** For exempt tanks, permeation data is not required to be submitted in the certification application (Go to #17).**

8. Test Information
a) New Testing? Yes
b) Test Engine or Equipment Model: ABC500Y
c) Test Fuel: Indolene
d) Test Procedure: TP-901
e) If carry over/carry across, from evaporative family:_____
f) Test Equipment ID: Snabc12345
g) Alternate Test Procedure approval number: _____

9. Special Test Equipment
No

10. Test No.	11. Type (Certification (CTG) or Confirmatory (RTG))	Official Fuel Tank Permeation Test Results**		
		12. Test Completion Date	13. Certification Test Result ($gr/m^2/day$)	14. Fuel Tank Permeation Standard ($gr/m^2/day$)
1	CTG	9/1/06	1.86	2.0

**** Permeation rates must be reported to two significant digits.**

15. Remarks:

16. Equipment Type:

___ Walk-Behind Lawnmower	___ Generator Set	___ Ice Auger
___ Riding Mower	___ Snowblower	___ Commercial Turf
___ Tractor	___ Non-Backpack Blower	___ Edger
___ Compressor	_X_ Backpack Blower	___ Brushcutter
___ Pump	_X_ Line Trimmer	___ Chainsaw
___ Hedge Trimmer	___ Pressure Washer	___ Leaf Blower/Vacuum
___ Stump Beater	___Tiller	___ Go-Cart
___ Other_____		

Processed By: | Date Processed | Reviewed By: | Date Reviewed:

Supplementary Information Instructions for Data Input			
No.	*Name*	*Input Data*	*Description*
17	Worst Case	Example: *	Input asterisk for one model to indicate which is worst-case
18	Engine or Equipment Model	Example: 65ABC	Input model name
19	Sales Code	Example: X	Input check mark for applicable sales code
20	Fuel Tank Volume	Example: 0.9	Input fuel tank volume in liters
21	Fuel Tank Internal Surface Area	Example: 0.07	Input fuel tank internal surface area in square meters (m^2)
22	Fuel Tank Material	Example: HDPE	Input fuel tank material
23	Fuel Tank Treatment Type	Example: Flourinated	Input type of treatment used on the fuel tank
24	Fuel Tank Unique Properties	Example: Optimized resin and additive package	Input fuel tank unique properties
25	Labeling	Example: X Input approval # if available	Input check mark to indicate if label has been approved, if yes, input approval # and input check mark if sample label is submitted with the application
26	Warranty	Example: X Input approval # if available	Input check mark to indicate if warranty has been approved If approved, input approval #
27	Have any changes been made since the last approval?	Example: X If changes, explain	Input check mark to indicate if changes have occurred Input explanation of changes since the last approval
28	Permeation Emission Label Information	See sample	Place copy of emissions label here
29	Fuel Tank Emission Warranty Statement	See sample	Place copy of emissions warranty statement here
30	Tank Manufacturer	Example: ABC Manufacturing Company	Input name of the fuel tank manufacturer
31	Tank I.D	Example: 100052	Input the identification and/or model of the tank tested
32	Tested By	Example: J. Smith	Input the name of person performing the test
33	Water Bath Test (pass/fail):	Example: PASS	Input the PASS or FAIL for the water bath test
34	Tank Internal Surface Area ($meter^2$):	Example: 0.0700	Input the internal surface area of the test tank in square meters
35	Start Date	Example: 8/5/04	Input the full tank data start date for each 24 hour period in mm/dd/yy format
36	Start Time	Example: 800	Input the full tank data start time for each 24 hour period
37	End Date	Example: 8/5/04	Input the full tank data end date for the test in mm/dd/yy format
38	End Time	Example: 800	Input the full tank data end time for each 24 hour period

39	Initial Weight W_{if} (grams)	Example: 500.00	Input the initial weight of the full tanks in grams
40	Final Weight W_{ff} (grams)	Example: 499.70	Input the final weight of the full tank in grams
41	Difference D_f (grams)	Example: 499.71	Input/calculate $W_{FF}+D_E$
42	Weight Loss *Wl* (grams)	Example: 0.29	Input/calculate $W_{IF}-D_F$
43	Start Date	Example: 8/5/04	Input the empty tank data start date for each 24 hour period in mm/dd/yy format
44	Start Time	Example: 800	Input the empty tank data start time for each 24 hour period
45	End Date	Example: 8/6/04	Input the empty tank data end date for the test in mm/dd/yy format
46	End Time	Example: 800	Input the empty tank data end time for each 24 hour period
47	Initial Weight W_{ie} (grams)	Example: 20.00	Input the initial weight of the empty tank in grams
48	Final Weight W_{fe} (grams)	Example:19.99	Input the final weight of the empty tank in grams
49	Difference D_e (grams)	Example: 0.01	Input/calculate $W_{IE}-W_{FE}$
50	%RH	Record relative humidity	Input the relative humidity
51	Baro. Pres	Record barometric pressure	Input the barometric pressure in millimeters of mercury
52	Additional Information and Comments	Example: R2=0.9573	Input any additional information and comments or leave blank

Supplementary Information

MODEL SUMMARY (Use an asterisk (*) to identify “worst-case” engine or equipment model used for certification testing.)

17. Worst Case	18. Engine or Equipment Model	19. Sales Codes (Check all appropriate)			20. Fuel Tank Vol. (liters)	21. Fuel Tank Internal Surf. Area (m^2)
		Calif. Only	49-State	50-State		
*	65ABC			X	0.9	0.07

22. Fuel Tank Material: HDPE

23. Fuel Tank Treatment Type: Fluorinated

24. Fuel Tank Unique Properties: Optimized resin and additive package

25. LABELING:
Permeation emission label format approved? No_X__ Yes ___ If yes, reference approval:_____
Sample label attached? No____ Yes (put label in #28)_X__

26. WARRANTY: Fuel Tank emission warranty approved? No_X_ (Provide full warranty statement in #29)
Yes ___ (Reference approval: _____)

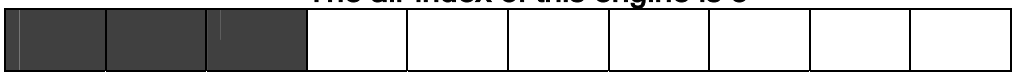
27. Have any changes been made since the last approval? No_X__ Yes ____ If yes, provide an explanation of the changes:

_____
_____
_____
_____
_____

28. PERMEATION EMISSION LABEL INFORMATION

IMPORTANT EMISSIONS INFORMATION
ABC COMPANY
THIS ENGINE MEETS 2007 CALIFORNIA EXH AND EVP
EMISSION REGULATIONS FOR SMALL OFF-ROAD ENGINES
EF: 7ABCS.0651XX
DOM: JULY 2007
SPARK PLUG GAP: .037-.041"
DISPLACEMENT: 65 CC.
EMISSION CONTROL SYSTEM: EM
NO OTHER ADJUSTMENTS NEEDED

Air Index Label
The air index of this engine is 3



Most Clean **Least Clean**

Note: The lower the Air Index, the less pollution

This engine is certified to be emissions compliant for the following use:

Moderate	**Intermediate**	Extended
[ ](50 hours)	**[X]**(125 hours)	**[ ]**(300 hours)

Check the owner's manual for further details.

29. FUEL TANK EMISSION WARRANTY STATEMENT

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and ABC Company (and manufacturer's name, optional) is pleased to explain the emissions control system's warranty on your 2007 (model year(s)) small off-road (equipment type) engine. In California, new equipment that use small off-engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. ABC Company (Manufacturer's name) must warrant the emissions control system on your small off-road (equipment type) engine for the period listed below provided there has been no abuse, neglect or improper maintenance of your equipment.

Your emissions control system may include parts such as: carburetors or fuel injection system, ignition system, catalytic converters, fuel tanks, valves, filters, clamps, connectors, and other associated components. Also, included may be hoses, belts, connectors, sensors, and other emission-related assemblies.

Where a warrantable condition exists, ABC Company (manufacturer's name) will repair your small off-road (or equipment type) engine at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S WARRANTY COVERAGE:
This emissions control system is warranted for two years. If any emissions-related part on your equipment is defective, the part will be repaired or replaced by (manufacturer's name).

OWNER'S WARRANTY RESPONSIBILITIES:

- As the small off-road (equipment type) engine owner, you are responsible for performance of the required maintenance listed in your owner's manual. ABC Company (Manufacturer's name) recommends that you retain all receipts covering maintenance on your small off-road (equipment type) engine, but ABC Company (manufacturer's name) cannot deny warranty solely for the lack of receipts or your failure to ensure the performance of all scheduled maintenance.
- As the small off-road (equipment type) engine owner, you should however be aware that the ABC Company (manufacturer's name) may deny you warranty coverage if your small off-road (equipment type) engine or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.
- You are responsible for presenting your small off-road (equipment type) engine to an ABC Company (manufacturer's name) distribution center or service center as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact (Insert chosen manufacturer's contact) at 1-XXX-XXX-XXXX.

DEFECTS WARRANTY REQUIREMENTS:
The warranty period begins on the date the engine or equipment is delivered to an ultimate purchaser.
General Emissions Warranty Coverage. The ABC Company (manufacturer's name) of each small off-road engine or equipment must warrant to the ultimate purchaser and each subsequent owner that the engine or equipment is:

(1) Designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board; and
(2) Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.

(a) The warranty on emissions-related parts will be interpreted as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions required by subsection (d) must be warranted for the warranty period defined in subsection (b)(2). If any such part fails during the period of warranty coverage, it must be repaired or replaced by the manufacturer according to subsection (4) below. Any such part repaired or replaced under the warranty must be warranted for the remaining warranty period.

(2) Any warranted part that is scheduled only for regular inspection in the written instructions required by subsection (d) must be warranted for the warranty period defined in subsection (b)(2). A statement in such written instructions to the effect of "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for the remaining warranty period.

(3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions required by subsection (d) must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by the engine manufacturer according to subsection (4) below. Any such part repaired or replaced under warranty must be warranted for the remainder of the period prior to the first scheduled replacement point for the part.

(4) Repair or replacement of any warranted part under the warranty must be performed at no charge to the owner at a warranty station.

(5) Notwithstanding the provisions of subsection (4) above, warranty services or repairs must be provided at all manufacturer distribution centers that are franchised to service the subject engines.

(6) The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.

(7) The manufacturer is liable for damages to other engine components proximately caused by a failure under warranty of any warranted part.

(8) Throughout the emissions warranty period defined in subsection (b)(2), the manufacturer must maintain a supply of warranted parts sufficient to meet the expected demand for such parts.

(9) Any replacement part may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of the manufacturer.

(10) Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts will be grounds for disallowing a warranty claim. The manufacturer will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

(11) The manufacturer issuing the warranty shall provide any documents that describe that manufacturer's warranty procedures or policies within five working days of request by the Air Resources Board.

(b) **Emission Warranty Parts List**.

(1) Fuel Metering System

(i) Carburetor and internal parts (and/or pressure regulator or fuel injection system).

(ii) Air/fuel ratio feedback and control system.

(iii) Cold start enrichment system.

(iv) Fuel Tank.

(2) Air Induction System
- (i) Controlled hot air intake system.
- (ii) Intake manifold.
- (iii) Air filter.

(3) Ignition System
- (i) Spark Plugs.
- (ii) Magneto or electronic ignition system.
- (iii) Spark advance/retard system.

(4) Exhaust Gas Recirculation (EGR) System
- (i) EGR valve body, and carburetor spacer if applicable.
- (ii) EGR rate feedback and control system.

(5) Air Injection System
- (i) Air pump or pulse valve.
- (ii) Valves affecting distribution of flow.
- (iii) Distribution manifold.

(6) Catalyst or Thermal Reactor System
- (i) Catalytic converter.
- (ii) Thermal reactor.
- (iii) Exhaust manifold.

(7) Particulate Controls

(i) Traps, filters, precipitators, and any other device used to capture particulate emissions.

(8) Miscellaneous Items Used in Above Systems
- (i) Electronic controls.
- (ii) Vacuum, temperature, and time sensitive valves and switches.
- (iii) Hoses, belts, connectors, and assemblies.

ABC Company (engine manufacturer) will furnish with each new engine written instructions for the maintenance and use of the engine by the owner.

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Field Data Sheet
(Trip Blank Correction)

30. Tank Manufacturer: ABC Manufacturing Company

31. Tank I.D: 100052

32. Tested By: John Smith (input name of person performing the test)

33. Water Bath Test (pass/fail): Pass

34. Tank Internal Surface Area (meter^2): 0.0700

Full Tank Data

35. Start Date	36. Start Time	37. End Date	38. End Time	39. Initial Weight W_{if} (grams)	40. Final Weight W_{ff} (grams)	41. Difference D_f (grams)	42. Weight Loss WI (grams)
8/5/04	800	8/6/04	800	500.00	499.70	499.71	0.29
8/6/04	800	8/7/04	800	499.70	499.45	499.45	0.25
8/7/04	800	8/8/04	800	499.45	499.25	499.24	0.21
8/8/04	800	8/9/04	800	499.25	499.04	499.03	0.22
8/9/04	800	8/10/04	800	499.04	498.84	498.84	0.20
8/10/04	800	8/11/04	800	498.84	498.74	498.74	0.10
8/11/04	800	8/12/04	800	498.74	498.63	498.62	0.12
8/12/04	800	8/13/04	800	498.63	498.53	498.53	0.10
8/13/04	800	8/14/04	800	498.53	498.44	498.45	0.08
8/14/04	800	8/15/04	800	498.44	498.35	498.36	0.08

$WI = (W_{if} - D_f)$, $D_f = (W_{ff} + D_e)$, $D_e = (W_{ie} - W_{fe})$

Empty Tank Data

43. Start Date	44. Start Time	45. End Date	46. End Time	47. Initial Weight W_{ie} (grams)	48. Final Weight W_{fe} (grams)	49. Difference D_e (grams)	50. %RH	51. Baro. Pres.
8/5/04	800	8/6/04	800	20.00	19.99	0.01		
8/6/04	800	8/7/04	800	19.99	19.99	0.00		
8/7/04	800	8/8/04	800	19.99	20.00	-0.01		
8/8/04	800	8/9/04	800	20.00	20.01	-0.01		
8/9/04	800	8/10/04	800	20.01	20.01	0.00		
8/10/04	800	8/11/04	800	20.01	20.01	0.00		
8/'11/04	800	8/12/04	800	20.01	20.02	-0.01		
8/12/04	800	8/13/04	800	20.02	20.02	0.00		
8/13/04	800	8/14/04	800	20.02	20.01	0.01		
8/14/04	800	8/15/04	800	20.01	20.00	0.01		

Note: This process is repeated until the correlation coefficient (R^2), from a plot of 10 consecutive 24 hour cycles, is 95% or greater (If 95 % or Greater PASS, if not FAIL). May include final correlation coefficient in item 52.

52. ADDITIONAL INFORMATION AND COMMENTS (for tanks soaked less than 140 days, submit fuel tank soak data, Figure 1 of TP-901 (Test Procedure for Determining Permeation Emission from Small Off-Road Engines and Equipment Fuel Tanks) and the calculated correlation coefficient. This applies to tanks that are soaked at non-elevated temperature (30 °C ± 10 °C) for less than 140 days and tanks with a nominal wall thickness of greater than 0.2" (5 mm) that are soaked at an elevated temperature (40 °C ± 2 °C) for less than 140 days):

Summary of Certification: Followed TP-901 test procedures.

Correlation Coefficient (R2) determined from Field Data Sheet = 0.9573

PART III - EVAPORATIVE REQUIREMENTS FOR ENGINES AND EQUIPMENT GREATER THAN 80 cc

A. Introduction

This part of the guidance document provides guidance for the preparation, submission, and revision of certification applications for Evaporative Emission Control Systems (EECSs) on Small Off-Road Engines (SOREs) greater than 80 cc or equipment utilizing such SOREs. It is not intended to replace the regulations, test procedures (TP-901 and TP-902), and certification procedures (CP-901 and CP-902). For this guidance to be useful, it is essential that the applicant be familiar with all the above-mentioned documents. In the event that any information in this guidance document conflicts with any of the above-mentioned documents (the regulations, TP-901, TP-902, CP-901, CP-902), the documents take precedence.

An Executive Order (EO) of Certification, indicating that these engines meet applicable evaporative requirements, must be obtained prior to the sale or lease, or the offering for sale or lease, for use or operation in California or the delivery or importation for introduction into commerce in California. Engine or equipment manufacturer may apply for an EO for those families meeting the evaporative requirements. Each family may be certified to either the performance or design standards, where applicable. The certification procedures in CP-901 and/or CP-902 and the test procedures in TP-901 and/or TP-902, or SAE J1737, or approved alternative procedures, must be followed. These guidelines provide additional information, including application formats and examples of certification documents.

Samples of the application forms and instructions are included in Attachment III-A. A sample of the Evaporative Certification Averaging and Banking Worksheet and instructions for engine or equipment certified to performance standards only, are included in Attachment III-B. Attachment III-C is a sample statement of compliance. A sample of Evaporative Emission Control Warranty Statement is shown in Attachment III-D. Attachments III-E, III-F and III-G consist of samples of the letter of intent, cover letter, and engine/equipment labels respectively. The application must contain all of the above listed documents covering the same engine/evaporative family to be considered a complete application submission. Some of the documents such as letter of intent, label sample, warranty statement, may be submitted ahead of the application to help expedite the application process.

After receiving and reviewing an application, the ARB will determine if the application is complete within 30 days of receipt of the application. The ARB will approve or disapprove the application within 90 days after deeming an application complete. The 90-day count begins after the application has been deemed complete. If an application is approved, an EO will be issued for the engine or equipment. If disapproved, the ARB will notify the applicant of the decision in writing and provide the reason(s) why the decision was reached.

B. General Overview

Engines greater than 80 cc and equipment utilizing such engines are grouped into three categories. The first category consists of Walk-Behind Mowers (WBMs) with engines greater than 80 cc but less than 225 cc (> 80 cc - < 225 cc). The second category consists of all other engines and equipment (referred to as small non-handheld equipment), except for WBMs, with

engines > 80 cc - < 225 cc. The third category consists of engines and equipment with engines greater than or equal to 225 cc (≥ 225 cc), referred to as large non-handheld.

1. Engines/Equipment Greater than 80 cc but less than 225 cc

a. Walk Behind Mowers

Virtually all WBMs use engines where the complete fuel system is supplied by the engine manufacturer. In 2006, WBMs must use fuel hose that permeates less than 15 g/m2/day when tested per SAE J1737 at 40 ^{o}C or higher temperature using CERT fuel (Phase II California Reformulated Gasoline) or other acceptable fuel.

In 2007 and 2008, the fuel hose requirement is eliminated and replaced with a diurnal performance standard of 1.3 g HC/day. In 2009 and subsequent MY, WBMs must meet a diurnal performance standard of 1.0 g HC/day.

b. Other Engines/Equipment excluding WBMs (Small Non-Handheld)

This class of engines and equipment has variable evaporative emission characteristics because their fuel system components, mainly the fuel tank, vary in size. Most equipment in this category also use engines where the complete fuel system is supplied by the engine manufacturer.

In 2006, engines and equipment are only required to meet a fuel hose permeation standard of 15 g/m2/day when tested per SAE J1737 at 40 ^{o}C or higher temperature using CERT fuel or other acceptable fuel.

In 2007-2011 MYs, ARB offers two compliance options:

i. Design Option

From 2007-2011, manufacturers using this option are required to meet fuel hose permeation standard of 15 g ROG/m2/day (ROG is Reactive Organic Gas), fuel tank permeation standard of 2.5 g ROG/m2/day, and canister or equivalent butane working capacity standards as specified in TP-902.

From 2012 and subsequent MYs, the fuel tank permeation standard is lowered from 2.5 g ROG/m2/day to 1.5 g ROG/m2/day.

ii. Performance Option

From 2007-2011, manufacturers using this option are required to meet the diurnal evaporative emission standard in grams hydrocarbons/day (HC/day) based on tank volume using the following formula:

1.2 + (0.056 x tank volume in liters)

From 2012 and subsequent MYs, the diurnal standard is lowered based on the following formula:

0.95 + (0.056 x tank volume in liters)

iii. Exemptions

Generator equipment fueled by a vehicle fuel tank of an on-road motor vehicle or marine vessel are exempt from the diurnal performance requirements in section 2754(a) and the fuel tank permeation and carbon canister design requirements in section 2754(b). However, these generators must use fuel hose that meets the design requirements specified in section 2754(b).

2. Engines/Equipment Greater than or equal to 225 cc (Large Non-Handheld)

This class of engines and equipment also has variable evaporative emission characteristics because their fuel tanks and fuel line lengths vary in size. Most equipment in this category do not use engines where the complete fuel system is supplied by the engine manufacturer and are expected to certify mostly by design.

In 2006 and 2007, large non-handheld engines and equipment are only required to meet a fuel hose permeation standard of 15 g/m2/day.

In 2008 and subsequent MYs, ARB offers two compliance options:

i. Design Option

In 2008-2012, manufacturers using this option are required to meet fuel hose permeation standard of 15 g ROG/m2/day, fuel tank permeation standard of 2.5 g ROG/m2/day, and canister or equivalent butane working capacity standards as specified in TP-902.

From 2013 and subsequent MYs, the fuel tank permeation standard is lowered from 2.5 g ROG/m2/day to 1.5 g ROG/m2/day.

ii. Performance Option

In 2008 and subsequent MYs, manufacturers using this option are required to meet the diurnal evaporative emission standard in grams HC/day based on tank volume using the following formula:

1.2 + (0.056 x tank volume in liters)

iii. Exemptions

Up till 2010, manufacturers meeting the small production volume tank exemption in Section 2766 are exempt from the diurnal standard in Section 2754(a) and the fuel tank permeation standard in Section 2754(b) but must certify equipment annually by submitting a Letter of Conformance. The Letter of Conformance must include, at a minimum, a statement citing the basis for complying with section 2766. Engines or equipment are not required to be configured with carbon canisters and low permeation fuel hoses until the 2010 model year. Tank

permeation data is not required to be submitted in the certification application. An Executive Order of Certification for such engines or equipment must be obtained prior to the sale or lease, or the offering for sale or lease, or the delivery or importation for introduction into commerce in California.

Generator equipment fueled by a vehicle fuel tank of an on-road motor vehicle or marine vessel are exempt from the diurnal performance requirements in section 2754(a) and the fuel tank permeation and carbon canister design requirements in section 2754(b). However, these generators must use fuel hose that meets the design requirements specified in section 2754(b).

3. Design-Based or Performance-Based Certification

Under the evaporative regulations, two certification options are available in most cases. One option requires that engine and/or equipment certify to the performance-based standards while the other requires certification to the design-based standards for each evaporative family. Both options require that running loss (R/L) emissions be controlled from being emitted into the atmosphere during engine operation. The EECSs must be certified annually to either the performance-based or design-based standards.

The following describes the certification steps for engines and equipment greater than 80 cc. Section (a) below discusses certification requirements specific to design-based certification while Section (b) discusses certification requirements specific to performance-based.

a. Design-Based Certification

Under design-based certification, engine or equipment use certified components such as fuel hoses, fuel tanks, and carbon canisters that meet specific design requirements in their EECSs to demonstrate compliance with evaporative requirements. Design-based certification allows engine or equipment to show compliance without testing of a complete EECS in a Sealed Housing for Evaporative Determination (SHED).

In lieu of using components from pre-certified component EO list, the engine or equipment manufacturer may test each component per applicable component test procedures to generate, at a minimum, one test point showing compliance with the applicable design requirements.

The next step is for the engine or equipment manufacturer to submit an application that includes all necessary data and information to the ARB at:

Mobile Source Operations Division
Off-Road Certification/Audit Section
Air Resources Board
9480 Telstar Avenue, Suite 4
El Monte, CA 91731-2988
Attn: Division Chief

Alternatively, manufacturers would procure and use evaporative parts from component manufacturers who have certified their specific components with MLD and therefore, have obtained a component EO from MLD. MLD plans to maintain a list of certified component EOs

on the ARB web site. In the design certification application, manufacturers can reference the component EO number.

The certification application must include component data for the hose, tank, and carbon canister, or the component EO numbers for pre-certified components. The application must also contain a running loss determination, an engineering description of the EECS, and a sample label.

b. Performance-based Certification

Performance-based certification requires the certification of a complete EECS to the diurnal evaporative emission performance standards specified in section 2754 (a) or the optional diurnal evaporative emission performance standards in section 2757. Compliance with all applicable performance standards must be demonstrated in order to obtain certification.

Certification Averaging and Banking

The purpose of Certification Averaging and Banking (CAB) is to generate diurnal emissions credits. Participation in CAB is voluntary, and only applies to engines or equipment with complete EECSs certified to the diurnal emission performance standards in section 2754 (a).

Section 2754.1 of the evaporative emission regulations provides the details of the CAB program. Attachment B in this document shows a sample CAB spreadsheet form. Further questions about how to participate in this program may be directed to your ARB certification contact.

The ARB representative will review all the submitted documents including the credits summary spreadsheet. The manufacturer's application and CAB spreadsheet will be reviewed for data and calculations to make sure all applicable performance standards are met and calculations are correct.

c. Running-Loss (R/L)

Running Loss (R/L) is the phase where evaporative emissions are emitted into the atmosphere during engine operation. The method used to control R/L emissions must be described in the evaporative emission system control description section in the application for both the design and performance options.

The evaporative regulations do not specify a standard or test procedure for running loss emissions. Instead, they require that running loss emissions be controlled from being emitted into the atmosphere during engine operation. Evaporative systems that use actively purged carbon canisters which meet the butane working capacity specifications in TP-902 are assumed to provide adequate demonstration of running loss control. For systems that do not use carbon canisters meeting the butane working capacity requirements specified by TP-902, a manufacturer must undergo an engineering evaluation of the EECS by MLD.

d. Worst-Case Determination

The regulations require manufacturers to test the model within an evaporative family that is expected to have the smallest evaporative differential between the expected evaporative

emissions and the applicable standard to represent all models within the evaporative family. Determination of worst case for evaporative emission control systems or components must be based on the certification option chosen by manufacturers.

Design-based certification requires the certification of individual components such as fuel hoses, fuel tanks, and carbon canisters to specific design requirements in their EECSs to demonstrate compliance with evaporative requirements. As such, worst case determination under this option must be based on emissions obtained from engineering evaluation or actual testing of each component. Worst case component will be the component closest to the applicable component emission standard of Section 2754(b). Please refer to the Section under component certification above for worst-case determination protocol for each component.

Performance-based certification requires the certification of a complete EECS to the diurnal evaporative emission performance standard. Worst case determination under this option must be based on summation of emissions from various components that make up the complete EECS, and must be obtained from engineering evaluation or actual testing of such complete EECS. For greater than 80 cc engines/equipment other than WBMs, the complete EECS with the largest tank volume will, most probably, most of the time, assuming same thickness, be worst case as the standard will be the least stringent (higher emission standard value.) However, other components in the EECS must also be taken into consideration for determination of worst case.

Manufacturers must provide engineering evaluation as to the basis for the worst-case EECS or component selection for the test engine or equipment. The ARB would either concur with the manufacturer's selection or request that a different EECS or component be tested.

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ATTACHMENT III-A
SMALL OFF-ROAD EVAPORATIVE EQUIPMENT CERTIFICATION
(Applicable to engines/equipment >80 cc engine displacement)
Certification Summary Sheet

1. Model Year:
2a. Manufacturer:
2b. EPA Assigned Manufacturer Code:
2c. Manufacturer Contact Information:

a) Manufacturer Contact	b) Production Plant Location/Contact
Contact: Title: Company: Address: Phone No.: Fax No.: Email:	Contact: Title: Company: Address: Phone No.: Fax No.: Email:

3. Evaporative Family Name:
4. Engine families within the evaporative family above:

5. Process Code:
6. Executive Order:

Confidential

7. California Sales Volume (units):_____ 8. 50-State Sales Volume (units):_____

9. Equipment Applications:

___Walk-Behind Lawnmower
___Riding Mower
___Tractor
___Compressor
___Pump
___Hedge Trimmer
___Stump Beater
___Generator Set
___Snowblower
___Non-Backpack Blower
___Backpack Blower
___Line Trimmer
___Pressure Washer
___Tiller
___ Ice Auger
___Commercial Turf
___ Edger
___ Brushcutter
___ Chainsaw
___ Leaf Blower/Vacuum
___ Go-Cart
___ Other_____

10. Certification Application:

a) Performance Standards ___
Fill out pages 40-42, 48-53

b) Design Standards ___
Fill out pages 40, 43-44, 48-53

c) Small Production Volume Tank Manufacturer ___
(i) For 2006-2009 MYs only fill out pages 40 and 48 (equipment models only)
(ii) For 2010 and later MYs fill out pages 40, 45-46, 48-53

d) Equipment fueled by on-road vehicle/marine vessel fuel tank ___
Fill out pages 40, 47-53 (as applicable)

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FOR SYSTEMS CERTIFIED TO PERFORMANCE STANDARDS (Section 2754(a))

Small Off-Road Evaporative Certification Summary Sheet

1. **Certification Information**

a) New Testing?: _____ b) if carry over/carry across, from which evaporative family:_____

c) Test Engine or Equipment Model: _____ d) Test Equipment ID:_____

e) Test Fuel: _____

f) Running Loss Vented Emissions Controlled (yes/no):_____ (If yes, please provide running loss description in the evaporative emission system description section, item #5)

g) Test Procedure: _____

h) Alternative Test Procedure Approval Number (if applicable):_____

i) Declared Evaporative Model Emission Limit (EMEL) in grams: _____

j) Associated Evaporative Family Emission Limit Differential (EFELD) in grams: _____

Note: ***No engine or equipment emissions within the family could be closer to its respective standard than the EFELD calculated from the declared EMEL for the worst case engine or equipment.***

2. **Special Test Equipment**

3. **Fuel Cap**

a) Is the cap permanently tethered? (Yes/No) _____

b) Does the fuel cap make a vapor seal? (Yes/No) _____

If no, innovative product Executive Order #_____

c) Is the user provided with an audible or physical feedback of the establishment of vapor seal? (Yes/No) _____

Please provide description of the fuel cap's features as part of the evaporative emission system description in item #5

4. **Certification Data**

a. Test No.	b. Type (Certification CTG or Confirmatory RTG)	Official 24-Hour Diurnal Test Results, g/day (1)		
		c. Test Completion Date	d. Certification Test Result (g/day)	e. Standard (g/day)

Note: (1) Diurnal emissions and standards must be expressed to two significant digits.

5. **Evaporative Emission System**

Provide an engineering description of the evaporative emission system. The description must also explain how vented tank emissions are controlled from being emitted into the atmosphere during engine operation.

6.

Processed By:		Date Processed		Reviewed By:		Date Reviewed:	

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FOR SYSTEMS CERTIFIED BY DESIGN (Section 2754(b))

Small Off-Road Evaporative Certification Summary Sheet

1. **Certification Information**

a) New Testing?: _____ b) if carry over/carry across, from evaporative family:_____

c) Test Fuel: _____

d) Running Loss Vented Emissions Controlled (yes/no):_____ (If yes, please provide running loss description in the evaporative emission system description section, item #4)

e) Is fuel tank exempt under Section 2766(a) (Yes/No)_____ If yes, specify fuel tank type:
Metal _____ Coextruded Multi-layer: _____ Innovative Product Executive Order # _____
Note: for exempt fuel tanks submission of permeation data is not required

f) Test Procedures(s): _____

g) Alternative Test Procedure(s) Approval Number(s) (if applicable):_____

h) Test component identification:

Tank	Hose	Vent Control

2. **Fuel Cap**

a) Is the cap permanently tethered? (Yes/No) _____

b) Does the fuel cap make a vapor seal? (Yes/No) _____
If no, innovative product Executive Order #_____

c) Is the user provided with an audible or physical feedback of the establishment of vapor seal? (Yes/No) _____
Please provide description of the fuel cap's features as part of the evaporative emission system description in item #4

3. **Certification Data**

	Official Design Declaration					
	1a. Test No	1b. Type (Certification CTG or Confirmatory RTG)	1c. Test Completion Date	1d. Measured Design Value	2. or Component Executive Order Number(s)	3. Regulatory Design Requirement
a. Fuel Hose Permeation					Complete page 48 if using certified components	
b. Fuel Tank Permeation (1)					Complete page 48 if using certified components	
c. Carbon Canister Butane Working Capacity					Complete page 48 if using certified components	
d. Other Vent Control					Complete page 48 if using certified components	

Note: (1) Fuel tank permeation emissions must be expressed to two significant digits.

4. **Evaporative Emission System**

Provide an engineering description of the evaporative emission system. The description must also explain how vented tank emissions are controlled from being emitted into the atmosphere during engine operation.

5.

Processed By:		Date Processed		Reviewed By:		Date Reviewed:	

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SMALL PRODUCTION VOLUME TANK MANUFACTURER (Section 2766(b))
Small Off-Road Evaporative Certification Summary Sheet

1. **Certification Information**

a) New Testing?: _____ b) if carry over/carry across, from which evaporative family:_____

c) Test Fuel: _____

d) Test Procedure(s): _____

e) Alternative Test Procedure(s) Approval Number(s) (if applicable):_____

f) Test component identification:

Hose	Vent Control

2. **Fuel Line**

	Official Design Declaration					
	1a. Test No	1b. Type (Certification CTG or Confirmatory RTG)	1c. Test Completion Date	1d. Measured Design Value	2. or Component Executive Order Number(s)	3. Regulatory Design Requirement
a. Fuel Hose Permeation					Complete page 48 if using certified component	

3. **Fuel Tank Venting Strategy**

a) Evaporative emission control system utilizing an actively purged carbon canister? Yes____ No____ (if no, complete item b below)

b)

	Official Design Declaration					
	1a. Test No	1b. Type (Certification CTG or Confirmatory RTG)	1c. Test Completion Date	1d. Measured Design Value	2. or Component Executive Order Number(s)	3. Regulatory Design Requirement
a. Carbon Canister Butane Working Capacity					Complete page 48 if using certified components	
b. Other Vent Control					Complete page 48 if using certified components	

4. **Fuel cap**

a) Is the cap permanently tethered? (Yes/No) _____

b) Does the fuel cap make a vapor seal? (Yes/No)_____

If no, innovative product Executive Order #_____

c) Is the user provided with an audible or physical feedback of the establishment of vapor seal? (Yes/No) _____

Please provide description of the fuel cap's features in item #5

5. Fuel cap's features

Provide description of the cap's features.

6.

Processed By:		Date Processed		Reviewed By:		Date Reviewed:	

DRAFT

EQUIPMENT FUELED BY ON-ROAD VEHICLE/MARINE VESSEL FUEL TANK (Section 2766(c))

Small Off-Road Evaporative Certification Summary Sheet

1. **Certification Information**

a) New Testing?: _____ b) if carry over/carry across, from which evaporative family:_____

c) Test Fuel: _____

d) Test Procedure: _____

e) Alternative Test Procedures Approval Number:_____

f) Test component identification: _____

2. **Fuel Line**

	Official Design Declaration					
	1a. Test No	1b. Type (Certification CTG or Confirmatory RTG)	1c. Test Completion Date	1d. Measured Design Value	2. or Component Executive Order Number(s)	3. Regulatory Design Requirement
a. Fuel Hose Permeation					Complete page 48 if using certified components	

3.

Processed By: _____ Date Processed _____ Reviewed By: _____ Date Reviewed: _____

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Small Off-Road Evaporative Certification Database Form
(Supplementary Information)

MODEL SUMMARY

S1. Worst Case (Check One)	S2. Engine or Equipment Model	S3. Sales Codes (check all appropriate)			S4. Engine Class (I or II)	S5. Fuel System (FI or CARB)	S6. Fuel Tank Vol. (Liters)	S7. Fuel Tank Internal Surface Area (m^2)	S8. Fuel Line Type	S9. Nominal Fuel Line Length (mm)	S10. Fuel Line Inside Diameter (mm)	S11. Exhaust Family	S12. Fuel Tank Executive Order	S13. Fuel Line Executive Order	S14. Carbon Canister or Other Venting Control Executive Order
		CA Only	49-State	50-State											

S15. LABELING:

Evaporative emission label format approved? No____ Yes ___ If yes, reference approval:_____

Sample label attached? No____ Yes (place label in #S17)____

S16. WARRANTY: Evaporative emission warranty approved? No___ (Provide full warranty statement in #S18)
Yes ___ (Reference approval: _____)

Have any changes been made since the last approval? No____ Yes ____ If yes, provide a brief explanation of the changes:

_____
_____
_____
_____
_____

S17. EVAPORATIVE EMISSION LABEL INFORMATION

S18. EVAPORATIVE EMISSION WARRANTY STATEMENT

S19. FUEL TANK SOAK INFORMATION

Submit fuel tank soak data, Figure 1 of TP-901 (Test Procedure for Determining Permeation Emission from Small Off-Road Engines and Equipment Fuel Tanks) and the calculated correlation coefficient. (This section is only applicable to tanks that are soaked at non-elevated temperature (30^{o} C±10^{o} C) for less than 140 days and tanks with a nominal wall thickness of greater than 0.2" (5 mm) that are soaked at an elevated temperature (40^{o} C±2^{o} C) for less than 140 days).

S20. WORST-CASE DETERMINATION

Provide an engineering evaluation as to the basis/analysis for the worst-case test engine/equipment or component (fuel line, fuel tank, canister) selection for certification testing.

S21. ADDITIONAL INFORMATION AND COMMENTS

Attachment III-A Instructions for Page 40
(Certification Summary Sheet)

The following instructions are provided to assist the manufacturer or applicant in filling out the main application Certification Summary Sheet (CSS) for submission to the ARB.

1. Model Year:
   The model year for which certification is sought (4 digits, e.g., 2007)

2a. Manufacturer:
   Manufacturer applying for certification of EECS.

2b. EPA Assigned Manufacturer Code:
   Code consisting of three letters or a combination of letter(s) and number(s) that will be a permanent code to be included in the manufacturer's engine family designations.

2c. Manufacturer Contact Information:
   a) Manufacturer contact: Authorized representatives to discuss certification matters with the ARB staff.
   b) Production Plant Location/Contact: Production plant address and contact information.

3. Evaporative Family Name:
   Enter the evaporative family name (EFN). The EFN can be: 1) two-letter evaporative family code where the engine is certified separately from the EECS; or 2) optional manufacturer evaporative code as defined in the owners manual; or 3) the exhaust family name (12 alphanumeric characters) with the last two letters representing the evaporative family code for any engine certified as a complete (both exhaust and evaporative emissions) unit.

4. Engine families within the evaporative family above:
   List all engine families using the same EECS. For example, a manufacturer may use an EECS on many engine families. All such families must be listed.

5. Process Code:
   New or Running Change (R/C)

6. Executive Order:
   Leave blank. To be filled by ARB.

7. California Sales Volume (units):
   This is the projected sales volume in California for the model year certification is sought.

8. 50-State Sales Volume (units):
   This is the projected sales volume in all 50 states including California for the model year certification is sought.

9. Equipment Applications:
   Check which type(s) of equipment (or types of equipment the engine will be used in) this application is for (you may check more than one, as applicable).

10. Certification Application:
    Check which compliance option you are certifying to.

10a. Check If you are certifying to the Performance standards and fill out pages 40-42, 48-53.

10b. Check If you are certifying to the Design standards and fill out pages 40, 43-44, 48-53.

10c. Check If you qualify under section 2752(a)(26) and 2766(b)(1&2) for small production volume tank exemption from the diurnal standards in 2754(a), and the fuel tank permeation standards in section 2754(b). Fill out pages 40, 45-46, and 48-53.

10d. Check if you qualify under section 2766(c) for generators that are fueled from the fuel tank of an on-road motor vehicle or marine vessel and are exempt from the diurnal performance requirements in section 2754 and the fuel tank permeation and carbon canister design requirements in section 2754(b). However, these generators must use fuel hose that meets the design requirements specified in section 2754(b). Fill out pages 40, and 47-53.

Attachment III-A Instructions for Page 41
FOR SYSTEMS CERTIFIED TO PERFORMANCE STANDARDS (Section 2754(a))
(Certification Summary Sheet)

1. Certification Information:

1a. New Testing?:
State Yes or No

1b. If carry over/carry across, from which evaporative family: State which evaporative family you are carrying over or carrying across from:

1c. Test Engine or Equipment Model:
State test engine or equipment model representing the evaporative family that was tested.

1d. Test Equipment ID:
State test engine or equipment model identification representing the evaporative family that was tested.

1e. Test Fuel:
State which fuel was used for testing, e.g., Indolene or CERT

1f. Running Loss Vented Emissions Controlled (yes/no?):
Indicate whether or not R/L is controlled.

1g. Test Procedure:
Enter the test procedure (TP-901 and/or TP-902) used. If any other test procedures other than the regulatory procedures were used or an alternative or special test procedure was used, please specify “Other”.

1h. Alternative Test Procedure Approval Number:
Indicate the alternative test procedure approval number here and provide a description of the approved test procedure in the statement of compliance.

1i. Declared Evaporative Model Emissions Limit (EMEL) in grams HC/day:
Enter the declared EMEL to which the evaporative family is being certified if participating in the California Averaging and Banking (CAB) program. If not applicable, enter N/A.

1j. Associated Evaporative Model Emission Limit Differential (EFELD) in grams:
State your EFELD for the evaporative family.

2. Special Test Equipment:
A special test equipment is any piece of equipment, hardware, or input not described in the regulations but which is employed in emission testing. In this Section, state any special test equipment used. Prior approval is normally required before any special test equipment is used in emission tests. Please seek approval before using special test equipment to avoid rejection of data generated from use of such equipment.

3. Fuel Cap:

3a. Is the cap permanently tethered? (Yes or No):
State Yes or No.

3b. Does the fuel cap make a vapor seal? (Yes or No):
State Yes or No. If no, you must provide innovative product Executive Order number approving the component.

3c. Is the user provided with an audible or physical feedback of the establishment of vapor seal? (Yes or No):
State Yes or No. Whether Yes or No, you must provide description of the cap's features in the space provided in item #5, page 42.

4. Certification Data:
Enter the official test results in each section of the table as follows:

4a. Test No.:
Enter the Test No. (e.g., 1, 2, 3, etc.)

4b. Type:
Enter type of test (CTG or RTG) conducted. CTG stands for "certification test using gasoline" and RTG stands for "confirmatory test using gasoline".

4c. Test Completion Date:
Enter the date the test was completed.

4d. Certification Test Result (g/day):
Enter the certification diurnal evaporative emission test results in g/day.

4e. Standard (g/day):
Enter the performance emission standard in grams/day as in Table 1 of section 2754.

Attachment III-A Instructions for Page 42
FOR SYSTEMS CERTIFIED TO PERFORMANCE STANDARDS (Section 2754(a))
(Certification Summary Sheet)

5. Evaporative Emission System:
Provide an engineering description of the evaporative emission system. The description must also explain how vented tank emissions are controlled from being emitted into the atmosphere during engine operation.

6. Processed By:
Leave blank.. To be used by ARB.
Date Processed:
Leave blank. To be used by ARB.
Reviewed By:
Leave blank. To be used by ARB.
Date Reviewed:
Leave blank. To be used by ARB.

Attachment III-A Instructions for Page 43
FOR SYSTEMS CERTIFIED BY DESIGN (Section 2754(b))
(Certification Summary Sheet)

1. Certification Information:

1a. New Testing?:
State Yes or No

1b. If carry over/carry across, state which evaporative family you are carrying over/carrying across from:

1c. Test Fuel:
State which fuel was used for testing, e.g., Indolene or CERT

1d. Running Loss Vented Emissions Controlled (yes/no?):
Indicate whether or not R/L is controlled.

1e. Is fuel tank exempt under Section 2766(a)? (Yes or No):
State Yes or No. If Yes, check fuel tank type and/or provide Innovative Product Executive Order #.

1f. Test Procedure(s):
Enter the test procedure (TP-901 and/or TP-902) used. If any other test procedures other than the regulatory procedures were used or an alternative or special test procedure was used, please specify "Other".

1g. Alternative Test Procedure(s) Approval Number(s), (if applicable) :
Indicate the alternative test procedure(s) approval number(s), if applicable, and provide a description of the approved test procedure(s) in the statement of compliance or in Section S17 (additional information or comments).

1h. Test Component Identification:
Identify component tested.

2. Fuel Cap:

2a. Is the cap permanently tethered? (Yes or No):
State Yes or No.

2b. Does the fuel cap make a vapor seal? (Yes or No):
State Yes or No. If no, you must provide innovative product Executive Order approving the component.

2c. Is the user provided with an audible or physical feedback of the establishment of vapor seal? (Yes or No):
State Yes or No. Whether Yes or No, you must provide description of the cap's features in item #4, page 44.

3. Certification Data:

3a. Fuel Hose Permeation:

1a. Test No – Enter the Test No. (e.g., 1, 2, 3, etc.).

1b. Type: (Certification CTG or Confirmatory RTG) - Enter type of test (CTG or RTG) conducted. CTG stands for "certification test using gasoline" and RTG stands for "confirmatory test using gasoline".

1c. Test Completion Date: – Enter the date the test was completed.

1d. Measured Design Value: - Enter the measured value in grams ROG/m2/day obtained from actually testing this fuel hose component.

2. or Component Executive Order Number(s): – Enter the component executive order number approving the fuel hose.

3. Regulatory Design Requirement: - Enter the regulatory design requirement (i.e., the permeation emission standard) for the fuel hose as depicted in Table 1, section 2754(b).

3b. Fuel Tank Permeation: Same response as in 3a above.

3c Carbon Canister Butane Working Capacity: Same response as in 3a.

3d. Other Vent Control: Same response as in 3a.

Attachment III-A Instructions for Page 44
FOR SYSTEMS CERTIFIED BY DESIGN (Section 2754(b))
(Certification Summary Sheet)

4. Evaporative Emission System:
Provide an engineering description of the evaporative emission system. The description must also explain how vented tank emissions are controlled from being emitted into the atmosphere during engine operation.

5. Processed By:
Leave blank.. To be used by ARB.
Date Processed:
Leave blank. To be used by ARB.
Reviewed By:
Leave blank. To be used by ARB.
Date Reviewed:
Leave blank. To be used by ARB.

Attachment III-A Instructions for Page 45
SMALL PRODUCTION VOLUME TANK MANUFACTURER (Section 2766(b))
(Certification Summary Sheet)

1. Certification Information:
   1a. New Testing?:
   State Yes or No
   1b. If carry over/carry across, state which evaporative family you are carrying over/carrying across from:
   1c. Test Fuel:
   State which fuel was used for testing, e.g., Indolene or CERT
   1d. Test Procedure(s):
   Enter the test procedure (TP-901 or TP-902) used. If any other test procedures other than the regulatory procedures were used or an alternative or special test procedure was used, please specify “Other”.
   1e. Alternative Test Procedure(s) Approval Number(s) (if applicable):
   Indicate the alternative test procedure(s) approval number(s), if applicable, and provide a description of the approved test procedure(s) in the statement of compliance or in Section S17 (additional information or comments).
   1f. Test Component Identification:
   Identify component tested.

2. Fuel Line:
   2a. Fuel Hose Permeation:
      1a. Test No: – Enter the Test No. (e.g., 1, 2, 3, etc.).
      1b. Type: (Certification CTG or Confirmatory RTG) - Enter type of test (CTG or RTG) conducted. CTG stands for “certification test using gasoline” and RTG stands for “confirmatory test using gasoline”.
      1c. Test Completion Date: – Enter the date the test was completed.
      1d. Measured Design Value: - Enter the measured value in grams ROG/m2/day obtained from actually testing this fuel hose component.
      2. or Component Executive Order Number(s): – Enter the component executive order number approving the fuel hose.
      3. Regulatory Design Requirement: - Enter the regulatory design requirement (i.e., the permeation emission standard) for the fuel hose as depicted in Table 1, section 2754(b).
3. Fuel Tank Venting Strategy:
   3a. Evaporative Emission Control System Utilizing an Actively Purged Carbon Canister? (Yes or No)
   State Yes or No. If No, complete item (3b) on page 45 using the instructions for items (3c) and (3d) on page 43.
   3b. Use instructions for items (3c) and (3d) on page 43 to complete this box.
4. Fuel Cap:
   4a. Use the Fuel Cap instructions of item #2 on page 43.
   4b. Use the Fuel Cap instructions of item #2 on page 43.
   4c. Use the Fuel Cap instructions of item #2 on page 43.

Attachment III-A Instructions for Page 46

5. Fuel Cap's Features:
   Provide description of the cap's features here.
6. Use instructions for item #5 on page 44.

Attachment III-A Instructions for Page 47
EQUIPMENT FUELED BY ON-ROAD VEHICLE/MARINE VESSEL FUEL TANK (Section 2766(c))
(Certification Summary Sheet)

1. Certification Information:
   Use instructions for item #1, (a) through (f), on page 45.
2. Fuel Line:
   Use instructions for item #2 on page 45.
3. Use instructions for item #5 on page 44.

Attachment III-A Instructions for Pages 48 to 53
Certification Database Form
(Supplementary Information)

S1. Worst Case (Check One):
Check worst-case model engine or equipment, from an evaporative emission perspective, that was tested.

S2. Engine or Equipment Model:
List all engine or equipment models next to their California Only, 49-state and 50-State sales codes. The worst-case test model engine or equipment must be among the models listed and should be identified with an asterisk.

S3. Sales Codes:
There are three engine or equipment sales codes, namely, California Only, 49-State, and 50-State. California Only means those that will be sold exclusively in California; 49-State means those that will be sold exclusively in the 49 state area which excludes California; and 50-State means those that will be sold in all 50 states including California. Please note that 50-State sales-code engines or equipment is not necessarily the addition of California Only and 49-State. 49-State sales-code engines or equipment may not be sold in California as they do not meet California requirements.

S4. Engine Class (I or II):
Enter the Class (I or II) that the engine or equipment belongs to.

S5. Fuel System (FI or Carb):
State if engine or equipment has a fuel injection or a carburetor fuel distribution system.

S6. Fuel Tank Vol. (liters):
Enter the fuel tank volume in liters.

S7. Fuel Tank Internal Surf. Area (m2):
Enter the fuel tank internal surface area in square meters.

S8. Fuel Line Type:
Enter fuel line type – Single or Multi-layer.

S9. Nominal Fuel Line Length (mm):
Enter the fuel line length in millimeters

S10. Fuel Line Inside Dia. (mm):
Enter the fuel line inside diameter in millimeters.

S11. Exhaust Family:
Enter the engine family name that uses the evaporative system or component here.

S12. Fuel Tank Executive Order:
Enter the Executive Order for the fuel tank here.

S13. Fuel Line Executive Order:
Enter the Executive Order for the fuel line here

S14. Carbon Canister or Other Venting Control Executive Order:
Enter the Executive Order for the carbon canister or other venting control here.

S15. Labeling:
Evaporative Emission Label Format Approved? Check "Yes" or "No". If "Yes", provide approval number. Approval of label format is a condition for certification.
Sample Label Attached? Check "Yes" or "No". If "Yes", put label in item (S13) below.

S16. Warranty:
Evaporative Emission Warranty Approved? Check "Yes" or "No". If "No", provide warranty statement in item (S15) below. If "Yes", provide approval number. Approval of warranty statement is a condition for certification.
Have any changes been made since the last approval? Check "Yes" or No ". If "Yes", provide a brief explanation of the changes made.

S17. Evaporative Emission Label Information:
Provide sample of evaporative emission label here.

S18. Evaporative Emission Warranty Statement:
Provide sample of full evaporative emission warranty statement here. See Attachment D for a sample.

S19. Fuel Tank Soak Information:
Figure 1, TP-901 is a one-page data sheet for reporting Permeation Emissions test data from Small Off-Road Engines and Equipment Fuel Tanks. Use this page to submit fuel tank soak data, if applicable, and include it in your certification application package.

S20. Worst-Case Determination:
Provide an engineering evaluation for selecting a worst-case engine or equipment for certification testing.

S21. Additional Information and Comments:
Please use the box for explanation, clarification, additional information, and comments.

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Attachment III-B
YZX Inc.
200X Model Year
Evaporative Certification Averaging and Banking Credit Worksheet Form
for
Small Off-Road Equipment with Engine Displacement > 80 cc
Certified to Performance Standards – Section 2745(a)

Engine/Evaporative Family	California Sales	Applicable Diurnal Standard (g)	EMEL [1] (g)	EFELD [2] (g)	Credits (g)
XYZXS.1581RA	1000	1.3	1.0	0.30	300.0
XYZXS.1631RA	6400	1.3	1.1	0.20	1280.0
XYZXS.1951RA	1500	1.3	1.5	-0.20	-300.0
XYZXS.4901RA	1400	2.0	2.2	-0.20	-280.0
XYZXS.6501RA	3000	2.3	2.0	0.30	900.0

TOTAL – Model Year:	1900.0
Credits expended from above balance:	625.0
Credits left over:	**1275.0**

	Banked Credits [a], [b]	Prev. MY Deficit [b]
Initial Balance	0.0	-500
Withdrawn	0.0	625.0
Remaining Deficit		0.0
Deposited	1,275.0	

Projected Final Balance	**1275.0**

Additional Notes:

(1) EMEL (evaporative model emission limit) is the diurnal emissions level declared by the manufacturer and must be based on diurnal test results for a worst case model of engine or equipment within the evaporative family.
(2) EFELD (evaporative family emission limit differential) is the emission level differential between the applicable diurnal standard for worst case model and the EMEL declared for the model and is applicable to the entire evaporative family represented by the model.
(a) The banked credits may be from previous model years.
(b) Withdrawn credits must be used at a rate of 1.25 grams to 1 gram for emission deficit. The source of withdrawn credits may be from the banked credits from previous model year or the projected credits for the current year. Diurnal emissions and standards must be expressed to two significant digits. Diurnal emission credits (positive or negative) are to be rounded to the nearest tenth of a gram.

Issued Date (mm/dd/yyyy): _____
Revised Date (mm/dd/yyyy): _____

Attachment III-B Evaporative Certification Averaging and Banking Worksheet Instructions
For Engine or Equipment Certified to Performance Standards Only

Engine/Evaporative Family:
This can be a 12-digit or two-letter code depending on how the engine or equipment is certified. Any engine certified as a complete (both exhaust and evaporative emissions) unit may be certified, at the manufacturer's option, under the 12-digit exhaust family name where the last two letters represent the evaporative family code..

California Sales (units):
The total number of California sales for all models within a given evaporative family for a particular model year.

Applicable Diurnal Standard (g):
For a complete EECS certified to the performance standard.

EMEL (Evaporative Model Emission Limit) (g):
The diurnal emissions level declared by a manufacturer for a model within an evaporative family for the purpose of averaging and banking of diurnal emission credits.

EFELD (Evaporative Family Emission Limit Differential) (g):
A negative or positive emission level differential between the effective standard level and the declared EMEL. It is calculated by the manufacturer and is subject to the limitations in subsections 2754.1(b)(6) and 2754.1(b)(7), to which an evaporative family is certified for averaging and banking purposes.

Credits (g):
California sales volume of an evaporative family multiplied by EFELD. It can be positive or negative depending on the sign of EFELD.

Total – Model Year (g):
The sum of all credits from all evaporative families from a manufacturer. Must not be less than zero.

Credits expended from above balance (g):
Used up credit.

Banked Credits (g):
Newly or previously banked credits.

Previous Model Year Deficit (g):
Deficits not yet made up with credits after 270 days of the end of the model year.

Initial Balance (g):
Credits (zero if no previous certification or credits) banked from previous years.

Withdrawn (g):
Credits used.

Remaining Deficit (g):
Net Credits.

Deposited (g):
Approved Credits added to balance or newly accumulated.

Projected Final Balance (g):
The balance of credits after addition or subtraction of new projected credits.

Credits left over (g) – must be non-negative:
Actual credits balance.

Additional Notes:
Add any remarks or clarifying statements here.

Attachment III-C Sample Statements of Compliance

Conformance with the general standards regarding an increase in emissions and unsafe conditions as required by Section 5 of the “California Exhaust Emission Standards and Test Procedures for 1995 and Later Small Off-Road Engines”, adopted March 20, 1992, and amended March 23, 1999.

Conformance with the specifications for the emission control label per 13 CCR, Section 2759.

Attachment III-D Evaporative Emission Control Warranty Statement

The Emission Control Warranty Statement has two parts to it. The first part is the introductory that is crafted verbatim from regulations. The introductory provides a summary of warranty coverage, manufacturer's obligations, and owner's responsibility. The second part, the defects warranty, states the warranty period and the emission warranty parts list covered and provides general emissions warranty coverage for defective parts.

Attachment III-D Sample Evaporative Emission Control Warranty Statement

CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS
(Must be crafted verbatim)
May be used for Exhaust or Evaporative, if amended accordingly.

The California Air Resources Board and ABC, Inc. are pleased to explain the evaporative emission (for combined exhaust and evaporative warranty statements, "evaporative emission" can be replaced with "emissions" where "emissions" is understood to mean both exhaust and evaporative emissions) control system warranty on your (model year) (equipment type or small off-road engine (SORE)). In California, new (equipment type or SORE) must be designed, built and equipped to meet the State's stringent anti-smog standards. ABC, Inc. must warrant the EECS on your (equipment type or SORE) for the period of time listed below provided there has been no abuse, neglect or improper maintenance of your (equipment type or SORE).

Your EECS may include parts such as the carburetor, fuel-injection system, the ignition system, catalytic converter, fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, and other associated emission-related components.

Where a warrantable condition exists, ABC, Inc. will repair your (equipment type or SORE) at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S WARRANTY COVERAGE:

This evaporative emission (or emissions) control system is warranted for two years. If any evaporative (delete "evaporative" if both exhaust and evaporative are combined) emission-related part on your equipment is defective, the part will be repaired or replaced by ABC, Inc.

OWNER'S WARRANTY RESPONSIBILITIES:

As the (equipment type or SORE) owner, you are responsible for performance of the required maintenance listed in your owner's manual. ABC, Inc. recommends that you retain all receipts covering maintenance on your (equipment type or SORE), but ABC, Inc. cannot deny warranty solely for the lack of receipts.

As the (equipment type or SORE) owner, you should however be aware that ABC, Inc. may deny you warranty coverage if your (equipment type or SORE) or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.

You are responsible for presenting your (equipment type or SORE) to ABC, Inc.'s distribution center or service center as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact (Insert chosen ABC, Inc.'s contact) at 1-XXX-XXX-XXXX. (end of the verbatim part). Next paragraph below starts the defects warranty part.

GENERAL EMISSIONS WARRANTY COVERAGE:

ABC, Inc. warrants to the ultimate purchaser and each subsequent purchaser that the (equipment type or SORE) is:

Designed, built and equipped so as to conform with all applicable regulations; and

Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to that part as described in ABC, Inc.'s application for certification.

The warranty period begins on the date the (equipment type or SORE) is delivered to an ultimate purchaser or first placed into service. The warranty period is two years.

Subject to certain conditions and exclusions as stated below, the warranty on emission-related parts is as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions supplied, is warranted for the warranty period stated above. If the part fails during the period of warranty coverage, the part will be repaired or replaced by ABC, Inc. according to subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period.

(2) Any warranted part that is scheduled only for regular inspection in the written instructions supplied is warranted for the warranty period stated above. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.

(3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions supplied is warranted for the period of time before the first scheduled replacement date for that part. If the part fails before the first scheduled replacement, the part will be repaired or replaced by ABC, Inc. according to subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.

(4) Repair or replacement of any warranted part under the warranty provisions herein must be performed at a warranty station at no charge to the owner.

(5) Notwithstanding the provisions herein, warranty services or repairs will be provided at all of our distribution centers that are franchised to service the subject engines or equipment.

(6) The (equipment type or SORE) owner will not be charged for diagnostic labor that is directly associated with diagnosis of a defective, emission-related warranted part, provided that such diagnostic work is performed at a warranty station.

(7) ABC, Inc. is liable for damages to other engine or equipment components proximately caused by a failure under warranty of any warranted part.

(8) Throughout the (equipment type or SORE) warranty period stated above, ABC, Inc. will maintain a supply of warranted parts sufficient to meet the expected demand for such parts.

(9) Any replacement part may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of ABC, Inc.

(10) Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts by the ultimate purchaser will be grounds for disallowing a warranty claims. ABC, Inc. will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

WARRANTED PARTS:

The repair or replacement of any warranted part otherwise eligible for warranty coverage may be excluded from such warranty coverage if ABC, Inc. demonstrates that the (equipment type or SORE) has been abused, neglected, or improperly maintained, and that such abuse, neglect, or improper maintenance was the direct cause of the need for repair or replacement of the part. That notwithstanding, any adjustment of a component that has a factory installed, and properly operating, adjustment limiting device is still eligible for warranty coverage. The following emission warranty parts list are covered (use portions of this list applicable to your (equipment type or SORE):

(1) Fuel Tank
(2) Fuel Cap
(3) Fuel Line
(4) Fuel Line Fittings
(5) Clamps
(6) Pressure Relief Valves
(7) Control Valves
(8) Control Solenoids
(9) Electronic Controls
(10) Vacuum Control Diaphragms
(11) Control Cables
(12) Control Linkages
(13) Purge Valves
(14) Vapor Hoses
(15) Liquid/Vapor Separator
(16) Carbon Canister
(17) Canister Mounting Brackets
(18) Carburetor Purge Port Connector

Attachment III-E Sample Letter of Intent

Mr. Allen Lyons, Chief
Mobile Source Operations Division
Air Resources Board
9480 Telstar Avenue, Suite 4
El Monte, California 91734-2301

October 15, 2006

Re: Letter of Intent for ABC Company Model Year 2007 Small Off-Road Engines

Dear Mr. Lyons:

ABC Company intends to produce and distribute small off-road engines in California and the United States. The fuel tanks or engines will be marketed by ABC Company OEMs to the general public in all 50 states. As such, ABC Company will coordinate with ARB and U.S. EPA staff to complete a 50-state certification program for the referenced engine families.

ABC Company will offer three distinct evaporative/engine families for the California small off-road engine market for the 2007 model year (MY). The following table provides an overview of ABC Company's proposed certification timeline for the 2007 MY small off-road engines or equipment.

Evaporative Family Name	Warranty, Label, Tamper, Approval	PLT Plan Approval	Application Submittal	Intended Distribution
7ABXS.0851AB	8/30/06	9/30/06	10/30/06	2/5/07
7ABXS.0851CA	8/30/06	9/30/06	10/30/06	2/5/07
7ABXS.0891CA	8/30/06	9/30/06	10/30/06	2/5/07

If you need additional information, please call me at 1 XXX-XXX-XXXX.

Regards,

(Sign here)

ABC Company Representative, Title
ABC Company

cc. Off-Road Certification/Audit Section

Attachment III-F Sample Cover Letter

Manufacturer Assigned Representative
ABC Company
555 Street Name
City, State Zip

November 11, 2006

Mr. Allen Lyons, Chief
Mobile Source Operations Division
Air Resources Board
9480 Telstar Avenue, Suite 4
El Monte, California 91734-2301

Re: MY 2007 Certification of ABC Company Engine Family 7ABCXS.0851X

Dear Mr. Lyons:

ABC Company hereby submits an application to the Air Resources Board for the 2007 model year that covers engine family 7ABCXS.0851X. The ABC Company makes the following statements of compliance regarding the aforementioned small off-road engine family:

1) Conformance with the general standards regarding an increase in emissions and unsafe conditions as required by Section 5 of the "California Exhaust Emission Standards and Test Procedures for 2005 and Later Small Off-Road Engines", adopted July 26, 2004.
2) The fuel tank was tested in conformance with the TP-901 test procedures.
3) Conformance with the emissions control label 13 CCR, Section 2404 and 2759.
4) Conformance with the standards and test procedure requirements by the test engine, and that the test engine was tested in accordance with the applicable test procedures and meets the requirements of such tests [Ref.: 4, Subpart B, section 90.107(d)(9)].
5) Compliance, to the best of the manufacturer's belief, with the corporate average at the end of the model year when all credits are calculated for all of the manufacturer's engine families [Ref.:1, section 2408(g)(1)(A)].

If you have any questions regarding this certification, please call me at 1-XXX-XXX-XXXX (Input phone #) or you may respond via e-mail at abcx@xxxxx.com (input e-mail).

Sincerely,

(Sign here)
Manufacturer of Record Representative

Attachment III-G Samples of Engine or Equipment Label

Minimum Requirements if there is insufficient space on the engine to accommodate an engine label. The fuel or lubricant must be specified elsewhere on the engine or in the owner's manual. All text is no smaller than 2 millimeters in height.

Important Emissions Information

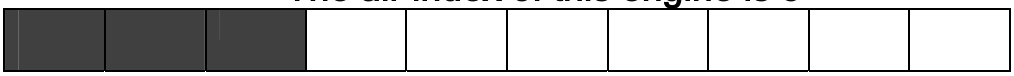
ABC COMPANY

THIS ENGINE MEETS 2007 CALIFORNIA EXH AND/OR EVP EMISSION REGULATIONS FOR SMALL OFF-ROAD ENGINES

EF: 7ABCS.0851XX
DISPLACEMENT: 85 CC.
DOM: JULY 2007
EMISSION CONTROL SYSTEM: EM
NO OTHER ADJUSTMENTS NEEDED

Air Index Label

The air index of this engine is 3



Most Clean ***Least Clean***

Note: The lower the Air Index, the less pollution

This engine is certified to be emissions compliant for the following use:

[ ] Moderate (50 hours) [X] Intermediate (125 hours) [ ] Extended (300 hours)

Check owner's manual for further details.

DRAFT

Emissions label with Engine Label and Air Index Label combined:

Important Emissions Information

ABC COMPANY

THIS ENGINE MEETS 2007 CALIFORNIA EXH AND EVP EMISSION REGULATIONS FOR SMALL OFF-ROAD ENGINES

EF: 7ABCS.0851XX

DISPLACEMENT: 85 CC.

DOM: JAN 2005

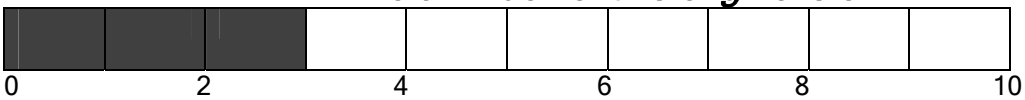
EMISSION CONTROL SYSTEM: EM

THIS ENGINE IS CERTIFIED TO OPERATE ON GASOLINE

MAINTENANCE SPECIFICATIONS	ENGINE OIL: SAE 10W - 30
IGNITION TIMING: 23 BTDC	SPARK PLUG GAP: .037-.041"

NO OTHER ADJUSTMENTS NEEDED

The air index of this engine is 3



Most Clean ***Least Clean***

Note: The lower the Air Index, the less pollution

This engine is certified to be emissions compliant for the following use:

[ ] Moderate (50 hours) [X] Intermediate (125 hours) [ ] Extended (300 hours)

Check owner's manual for further details.

Evaporative Equipment Permeation label for a Blue Sky Series engine:

Import Emissions Information (Blue Sky)

ABC Company

THIS ENGINE MEETS 2007 CALIFORNIA EVP EMISSION REGULATIONS FOR BLUE SKY EQUIPMENT FOR SMALL OFF-ROAD ENGINES

EF: 7ABCS.0851XX

DISPLACEMENT: 85 CC

DOM: JAN 2006

REFERENCES

1. Title 13, California Code of Regulations, (13 CCR) Sections 2400 through 2409, and 2750 through 2773.

2. California Exhaust Emission Standards and Test Procedures For 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, California Environmental Protection Agency, Air Resources Board, El Monte CA, 2000.

3. California Exhaust Emission Standards and Test Procedures for 1995-2004 Small Off-Road Engines, California Environmental Protection Agency, Air Resources Board, El Monte CA, July 26, 2004.

4. California Exhaust Emission Standards and Test Procedures for 2005 and Later Small Off-Road Engines, California Environmental Protection Agency, Air Resources Board, El Monte CA, July 26, 2004.

5. Small Off-Road Engine Evaporative Emission Control System Certification Procedure, CP-901, California Environmental Protection Agency, Air Resources Board, Sacramento, CA, July 26, 2004.

6. Test Procedure for Determining Permeation Emissions from Small Off-Road Engine Equipment Fuel Tanks, TP-901, California Environmental Protection Agency, Air Resources Board, Sacramento, CA, July 26, 2004.

7. Small Off-Road Engine Evaporative Emission Control System Certification Procedure, CP 902, California Environmental Protection Agency, Air Resources Board, Sacramento, CA, July 26, 2004.

8. Test Procedure for Determining Diurnal Evaporative Emissions from Small Off-Road Engines and Equipment, TP-902, California Environmental Protection Agency, Air Resources Board, Sacramento, CA, July 26, 2004.

9. Certification of 2000 Model Year (MY) and Later Small Off-Road Engines (SOREs), MSO 99-08, August 31, 1999.

10. California Exhaust Emission Standards and Test Procedures for 1995 and Later Small Off-Road Engines, California Environmental Protection Agency, Air Resources Board, El Monte CA, 1999.

11. SAE J1737, Test Procedure to Determine Hydrocarbon Losses from Fuel Tubes, Hoses, Fittings, and Fuel Line Assemblies by Recirculation, Issued August 1997.

12. Title 40, Code of Federal Regulations, Part 86